Review of Pretrial Risk Assessment and Factors Predicting Pretrial Release Failure

John-Etienne Myburgh, Carolyn Camman & J. Stephen Wormith

Centre for Forensic Behavioural Science and Justice Studies

University of Saskatchewan

UNIVERSITY OF SASKATCHEWAN

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Prepared by:

John-Etienne Myburgh
Carolyn Camman, MA
J. Stephen Wormith, PhD

On behalf of the

Centre for Forensic Behavioural Science and Justice Studies

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One of the most important areas of prison growth is related to the *pretrial population*, those persons who are charged with the commission of certain offences and are awaiting commencement or completion of their case. While some of these individuals are released during an initial hearing, others are detained for the duration of their trial. A recent innovation in this area has been the use of pretrial risk assessments (PTRAs), instruments which objectively assess a defendant's risk of failing to appear or to commit a new crime prior to their trial date. Research suggest that PTRAs have validity in decreasing the amount of pretrial defendants housed in prisons or jails, may help to honour the presumption of innocence through the expanded release of low-risk pretrial defendants, and may increase efficiencies in the criminal justice system.

The Pretrial Process

Pretrial release is crucial in reducing unnecessary use of secure detention and to ensure that defendants will appear in court when summoned. There are many similarities in the pretrial release process between Canada and the United States, although in the US there is a much greater reliance on the use of financial bonds as well as widespread use of PTRAs which are generally administered through dedicated pretrial service agencies (PSAs). In both countries, individuals who are awaiting trial and sentencing may be released to the community rather than detained (remanded) if the court is satisfied that they are not a significant risk to fail to return for their scheduled court appearance or commit another crime. This release may take various forms and may or may not include supervision, release conditions, or financial commitments.

In both the United States and in Canada, approximately over half of the state and provincial prison population is accounted for by defendants who were detained pretrial rather than released, which represents a substantial increase over the past decade or more. Reasons postulated for the increase in the remand/detention population include the increasing number of high-risk defendants, increased enforcement of specific offences (including administration of justice charges), an increase in the average number of charges per defendant, and a decrease of discretionary release on the part of police agencies.

Issues with Current Pretrial Practice

Because of the increased detention of pretrial defendants, certain problems related to this increase have become apparent.

- **Human impact of pretrial detention:** While remand is necessary for the administration of justice, the overuse of it may lead to extremely negative outcomes for defendants, including over-crowded jail conditions, disruptions to work and loss of employment, disruption of childcare responsibilities, and financial consequences. Moreover, certain populations are over-represented in pretrial detention populations, including the poor, the homeless, persons suffering with addictions, and persons with mental health issues.

- **Effectiveness of conditions imposed:** While 99% of all federal defendants are released on conditions of some type, very little research has been conducted to determine which

conditions are most likely to guarantee a defendant's appearance in court. This is problematic considering that the goal behind the imposition of conditions is to ensure a defendant's appearance in court. What research has been done has not supported the effectiveness of many pretrial release conditions on preventing pretrial failure.

- **Risk assessment in a culture of risk aversion:** Some researchers argue that Canadian lawmakers are currently experiencing a high level of risk aversion when it comes to release decisions. What this means is that there has been a shift to a strategy of minimizing the risk of being blamed if a defendant reoffends by erring on the side of remand and while risk assessment has become mainstream in other aspects of the criminal justice system, no equivalent level of risk assessment has been brought in to help judicial officers make decisions regarding release.

Responses to Pretrial Issues

In response to these concerns, some regions are attempting to incorporate innovative new practices in order to address issues relating to the backlog of cases in the criminal justice system and the rising remand population, including the use of video court, the expanded use of non-financial pretrial release conditions, evaluation of existing pretrial interventions, systemic changes to bail process, and the expanded use of pretrial risk assessment.

Pretrial Risk Assessment

The goal of PTRAs is to help judicial officers make informed decisions about who to release and who to detain. It has been suggested that the potential benefits of improved bail decisions include increased public safety, protecting defendants' presumption of innocence, lead to a more efficient court and jail system, will improve the use of criminal justice and community resources, and will reduce disparities in decision-making through using objective criteria to assess risk. The use of PTRAs has also been linked to a decrease in the detention population in the United States. The rationales for the use of PTRAs include:

Shift toward objective decision-making: The move towards using PTRAs is consistent with the general move towards utilizing actuarial tools, as opposed to clinical judgment, in assessing the risk level of a defendant, and toward the use of evidence-based practices in general.

More favourable sentencing outcomes: It has been demonstrated that receiving pretrial release may result in more positive sentencing outcomes and it is suggested that this is because they have more access to their attorneys and are less likely to be viewed unfavourably by juries.

Financial pressures on the justice system and defendants: The costs associated with incarceration are high both for the criminal justice system and the defendants themselves. To the extent that PTRAs can reduce pretrial detention and the reliance on financial bonds (in the US), this can result in substantial savings.

Concerns with Current PTRA Instruments

  While PTRAs have great potential and utility, research into this area has highlighted issues that face a majority of these assessments. Specifically, a lack of definitional unity between measures, the use of overrides, instrument construction issues that decrease validity, subjective sentencing practices, and the influence of race and ethnicity on PTRA scores are all issues that must be considered in examining the utility of a PTRA.

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Existing Pretrial Risk Assessment Tools

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  PTRAs are prevalent in the US, although they vary in terms of their construction and quality. Eighteen instruments were identified through this review based on their adherence to empirical standards of risk prediction, the recency of their development, and their accessibility, and classified into five categories based on geographic range:

City-Level Pretrial Risk Assessment Tools
- *New York City Pretrial Risk Assessment Instrument*

County-Level or Judicial District Pretrial Risk Assessment Tools
- *Lake County Pretrial Risk Assessment Instrument*
- *Minnesota Fourth Judicial District Pretrial Evaluation Scale*
- *Allegheny Pretrial Services Risk Assessment*
- *District of Columbia PSA Pretrial Risk Assessment*
- *Iowa Fifth Judicial District Pretrial Release Point Schedule*

State-Level Risk Pretrial Risk Assessment Tools
- *Virginia Pretrial Risk Assessment Instrument*
- *Kentucky Pretrial Risk Assessment*
- *Florida Pretrial Risk Assessment Instrument*
- *Ohio Risk Assessment System*
- *Indiana Risk Assessment Instrument*
- *Colorado Pretrial Assessment Tool*
- *Connecticut Pretrial Risk Assessment Instrument*

National-Level Pretrial Risk Assessment Tools
- *U.S. Federal Pretrial Services Risk Assessment Instrument*
- *Bail Reform Act factors in a national instrument*
- *The Public Safety Assessment Court Tool*

Juvenile Risk Pretrial Risk Assessment Tools
- *Juvenile Detention Alternatives Initiative Pretrial Risk Assessment*
- *Minnesota Fourth Judicial District Juvenile Courtroom Risk Assessment Instrument*

Risk Factors Predicting Pretrial Failure

From the identified instruments and their validation studies, nineteen factors were identified as being relevant to the prediction of pretrial failure, either in terms of failures-to-appear (FTAs) or the commission of a new crime. The factors which received the most support were the defendant's age, substance abuse, employment status/history, criminal history, past supervision failures, and current criminal involvement, which is largely consistent with the literature on prediction of criminal recidivism. These factors are also consistent with many of the statutory guidelines for release decisions which exist, which is important as any risk assessment tool will need to be both empirically- and judicially-supported to be useful.

The factors were grouped into the following categories:

Individual factors
- Age
- Ethnicity
- Gender
- Mental health status/history
- Substance abuse
- Concurrent substance abuse and mental disorder

Social Factors
- Residential stability
- Residence arrangements
- Marital status
- Availability of guarantors

Economic Factors
- Employment status/history
- Education level
- Financial resources
- Home ownership
- Transportation
- Has a phone

Criminal Factors
- Criminal history (prior arrests, convictions, incarceration)
- Past release failures (FTAs, absconding, revocations,)
- Current criminal involvement

However, it is important to note that few comprehensive studies of these factors have been conducted and that there have been substantial methodological limitations with the construction of PTRA instruments thus far, including a lack of consistency on the use of outcome indicators (e.g., FTAs versus new crimes versus other forms of release failure). As well, no instruments were identified that have been developed or validated on Canadian populations. Nonetheless these factors represent the starting point for the development of a useful PTRA instrument.

Recommendations

On the basis of the literature, a number of recommendations were generated pertaining to the research and evaluation of PTRAs, the administration of justice around the use of PTRAs, and for the Saskatchewan Ministry of Justice regarding the potential future use of PTRAs.

For PTRA research and evaluation, it is recommended:
- That more PTRA validation studies be conducted and publicly disseminated to allow for comparison.

- That additional research be conducted on factors impacting pretrial release outcomes, as well as a wider range of outcomes. In particular, there should be further attention paid to the role of police discretion and exploration of the utility of employing PTRAs by police as well as the judiciary.
- That agencies which oversee the use of PTRAs are equipped to capture pretrial supervision outcomes through calculating FTA and re-arrest rates, and maintain an accurate data management system.

For the administration of justice related to PTRAs, it is recommended:
- That pretrial release be an option for all offenders who do not pose an undue risk for FTA or for endangering public safety, and that these defendants be released according to the least restrictive measure possible.
- That every jurisdiction have a pretrial services agency or program that can provide information to the courts to assist in release and detention decisions, as well as provide monitoring and supervision for released defendants.
- That pretrial investigation be conducted by the established pretrial services agency, in order to inform decisions regarding pretrial release or detention.
- That release conditions should only be imposed if there is an identified risk that can be targeted through proper interventions, with the sole purpose of increasing pretrial success.

For the Saskatchewan Ministry of Justice, it is recommended:
- That in the desire to foster expedient justice as well as decrease unnecessary detention, it is recommended that an evidence-based, practical, and geographically applicable PTRA be developed for use within the jurisdiction (John Howard Society of Ontario, 2005).
- If a PTRA is developed, that it be re-evaluated every three to five years, or as needed.
- That dynamic factors be considered for inclusion in the tool, especially dynamic factors relating to the "central eight" criminogenic needs.
- That all persons conducting PTRAs be trained in the correct use of the tool
- That the instrument be integrated with existing case management tools used in other related justice departments.
- That a pretrial release strategy be formulated by all affected parties: the judiciary, criminal justice policymakers, correctional/detention officials, lawyers (both prosecution and defence) and PSAs.

INTRODUCTION

One of the most important areas of prison growth is related to the *pretrial population*, those persons who are charged with the commission of certain offences and are awaiting commencement or completion of their case. While some of these individuals are released during an initial hearing, others are detained for the duration of their trial. At this stage, a defendant is to be considered innocent until proven guilty (*Canadian Charter of Rights and Freedoms*, 1982) and is to be afforded the ability to remain in the community until the commencement of their trial. Because the pretrial stage handles the largest volume of cases in the criminal justice system, it also poses the largest risk for incarceration—also known as pretrial detention—for a defendant (Goldkamp & White, 2006).

A recent innovation in this area has been the use of pretrial risk assessments (PTRAs), instruments which objectively assess a defendant's risk of failing to appear or to commit a new crime prior to their trial date. The goal of pretrial risk assessment is to determine which defendants are at risk of failure to appear (FTA) for the hearing of their case, at a high risk of re-arrest for criminal activity while on release, or for a combination of both factors (Austin, Ocker, & Bhati, 2010; Austin, Bhati, Jones, & Ocker, 2012; Bechtel, Lowenkamp, & Holsinger, 2011; NAPSA, 2004). Because pretrial release has been linked to defendants being treated more favourably in court (NAPSA, 2004; Spohn, 2008), and because the cost of custodial detention is much higher than maintaining a defendant in the community (Austin et al., 2012), many jurisdictions are moving towards expanding their use of PTRAs to help the judiciary make informed decisions about releasing defendants.

Research suggest that PTRAs have validity in decreasing the amount of pretrial defendants housed in prisons or jails, may help to honour the presumption of innocence through the expanded release of low-risk pretrial defendants, and may help to increase efficiencies in the criminal justice system. The current report is a review of the relevant literature around these assessment instruments. The report is divided into four sections:

- ➢ **Part 1** provides the necessary context for the review by giving a brief overview of the pre-trial process in Canada and the US
- ➢ **Part 2** reviews the history of PTRAs and their use, and discusses the benefits and limitations of these instruments
- ➢ **Part 3** gives a detailed overview of existing tools, their features, and their empirical support
- ➢ **Part 4** concludes with a review of all of the risk factors identified for use in these instruments and their relative significance

Finally, recommendations for future research, for the administration of justice, and for the Saskatchewan Ministry of Justice specifically will conclude this report.

This review was conducted concurrently with a similar review of the use of administration of justice charges and sanctions. For an overview of the search methodology, see Appendix A (p. 72 of this report).

According to the National Association of Pretrial Services Agencies ([NAPSA]; 2004), the purposes of pretrial release "…include providing due process to those accused of crime, maintaining the integrity of the judicial process by securing defendants for trial, minimizing the unnecessary use of secure detention, and protecting victims, witnesses and the community from threat, danger or interference" (p. 9). Pretrial release is crucial in reducing unnecessary use of secure detention and to ensure that defendants will appear in court when summoned (NAPSA, 2004).

There are a number of differences regarding pretrial release between the United States and Canada. In the US, there is a much higher reliance on the use of cash bonds for release as well as growing popularity of using pre-trial risk assessment instruments (PTRAs) in order to inform release decisions. In the US, pretrial service agencies (PSAs) are responsible for administering the PTRAs, as well as conducting the pretrial investigation, supervision of defendants in the community, issuing court date reminders to defendants, and accurately capturing pretrial data and supervision outcomes. Both countries, however, have reported increasing use of pretrial detention as opposed to release, and experience similar challenges with the process as well as a shared interest in potential solutions.

Pretrial Process in Canada

Every time a person is charged with a crime, a decision must be made whether the defendant will be detained in custody or released into the community while awaiting their trial (VanNostrand & Keebler, 2007). This decision-making process begins with the police, who have the discretionary power to release the accused[1] on a *promise to appear* (also called a *summons*), which contains the information about when the defendant's case will be heard in a court of law (LawFacts, n.d.). Alternatively, police can choose to detain a defendant until their case is heard by a judicial officer (Deshman & Myers, 2014). The decision at hand here is whether the defendant is at a high level of risk for *failure to appear* (FTA) for their court date, or for endangering public safety while released in the community (VanNostrand & Keebler, 2007).

If a defendant is not released by the police, they are detained in police cells until they can appear before a judicial officer for a *bail hearing*, usually within 24 hours of being detained (Deshman & Myers, 2014). At this hearing, the judge will consider the evidence against the defendant and make a determination as to their risk of FTA and whether releasing the defendant poses an unnecessary risk to public safety (Department of Justice Canada, 2013; Mamalian, 2011). If a defendant is not released at this hearing, they are detained, or *remanded* to a custodial facility, until a subsequent bail hearing or until their trial begins. In Canada, remanded defendants remain under the care of provincial jails or prisons (John Howard Society of Ontario, 2005).

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[1] The terms *accused* and *defendant* are used synonymously throughout this report to refer to a person who has been charged with certain offences, but has not yet been tried in a court of law. It should be noted that in the legal literature, the term *accused* is the acceptable manner of referring to an untried person. However, in most of the pretrial literature the term *defendant* is used. It is the opinion of the authors that the term *defendant* is preferable, as the person charged should be viewed as innocent until proven guilty.

Bail refers to "written permission from a court, allowing a person charged with a criminal offence to be out of jail while they wait for their trial or some other result in their case (such as a guilty plea or a withdrawal of their charges)" (LawFacts, n.d.). VanNostrand and Keebler (2007) write: "The bail decision is a reflection of pretrial justice; it is the primary attempt to balance the rights afforded to accused persons awaiting trial with the need to protect the community, maintain the integrity of the judicial process, and assure court appearance" (p. 20). Furthermore, the release decision reflects the legal reality that the defendant is considered innocent until proven guilty in a court of law (*Canadian Charter of Rights and Freedoms*, 1982), and therefore, if they do not pose undue risk, should be released until their trial.[2] This belief is the underlying principle of *pretrial justice*—"the honouring of the presumption of innocence, the right to bail that is not excessive, and all other legal and constitutional rights afforded to accused persons awaiting trial while balancing these individual rights with the need to protect the community, maintain the integrity of the judicial process, and assure court appearance" (VanNostrand & Keebler, 2007, p. 20).

In 1972, Canada moved from a cash bail system to a system that encouraged pretrial release through the *Bail Reform Act* (Myers, 2009). The goal of the new system was to promote the rights of the defendant, and was built around the idea of moving away from unnecessary incarceration. In Canada, bail, also referred to as *judicial interim release* (see Garton, 2005) may be granted in several different ways. If the court is satisfied that the defendant can be released prior to their trial, the judge can choose to:

- Release the defendant on an undertaking with conditions;
- Release the defendant, without sureties, on a recognizance, without depositing money or any surety,[3] along with conditions;
- Release the defendant, with sureties, on a recognizance, without depositing money or any surety, along with conditions;
- Release the defendant, without sureties, on a recognizance, with depositing money or any surety as deemed suitable;
- Release the defendant, with or without sureties, on a recognizance, with depositing money or any surety as deemed suitable, when the defendant is not a resident of the province in which the alleged crime occurred, or if the defendant does not live within a two-hundred kilometer radius of the place of custody (*Criminal Code of Canada* [*CCC*], 1985).

As noted, conditions may be included as part of a judicial interim release. Conditions that can be imposed on the defendant include any of the following, and, depending on the severity of the offence, may be mandatory. The purpose behind imposing conditions is to mitigate the risk that the defendant may pose, while also ensuring that they will appear for their day in court. Conditions imposed may include:

- Reporting to a peace officer or other designated person;
- Remaining within the territorial jurisdiction;

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[2] There are situations in which bail can be statutorily denied

[3] A surety refers to "a person who promises to a judge or a justice of the peace to supervise an accused person while he/she is out on bail. Sureties also pledge a specified amount of money to the court which they risk losing should the accused not follow his/her bail conditions or fail to appear in court when required" (John Howard Society of Ontario, 2013, p. 3).

- Notification of change of address, employment, or occupation;
- Abstention from direct or indirect communication with any victim or witness specified in the order;
- Geographical restrictions;
- Depositing their passport, if they are a passport holder;
- Complying with any conditions the judge considers necessary to protect the safety and security of any victim or witness;
- Complying with any other conditions considered necessary by the judge;
- Prohibition of possession of firearms or other weapons; and,
- The surrender, disposal, detention, or storage of firearms or other weapons (*CCC*, 1985).

While pretrial release is to be favoured (Deshman & Myers, 2014; Myers, 2009), a judicial officer may also choose to detain a defendant under section 515(10) of the *CCC* for the following reasons: If detention is necessary to ensure the defendant's court attendance; if detention is necessary to ensure the protection or safety of the public; and where detention is necessary to maintain confidence in the administration of justice. Pretrial detention has been found to not be in violation of a defendant's rights under the *Charter of Rights and Freedoms* (1982). Section 11 of the *Charter* outlines the fundamental right the presumption of innocence until proven guilty, as well as to the right to be released on reasonable bail, as long as no just cause can be shown for why bail should be denied. In commenting on this section of the *Charter*,

Garton (2005) highlights several important considerations regarding the interaction of *Charter* rights and the administration of justice:
- "Bail" must be understood in the *Charter* to reflect all forms of judicial interim release;
- While bail can be statutorily denied in select cases, the range of exceptions is narrow, which maintains the "reasonable" clause of 11(e). Furthermore, differential treatment is allowable based on the seriousness of the offence (*R v Pearson*, 1992);
- While the proviso that bail can be denied "for the protection or safety of the public" (*CCC*, 1985) is both broad and vague, the Supreme Court has upheld the constitutionality of this reasoning for limiting bail (*R v Morales*, 1992; *R v Pearson*, 1992), arguing protection of the public is necessary for the proper functioning of the bail system, and is not extraneous to the purpose of bail;
- The reverse-proof burden[4]—that the accused must demonstrate why they should be released on bail—is not a violation of the *Charter*.

In other words, while the *Charter* guarantees certain rights, these rights are not absolute (Garton, 2005). Furthermore, section 515 of the *Criminal Code* is found to be in agreement with the goals and intents of the *Charter*. Charges which lead to statutory detention include any of the following offences (515(6), *CCC*):
- An indictable offence under *CCC* section 469;[5]

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[4] While usually it is up to the prosecutor to prove why an accused should not be allowed bail, certain restrictions, found in sections 515(6) and 522(5) of the *Criminal Code*, require the defendant to prove why they should be allowed bail.

[5] These offences include the attempt to commit, conspiracy to commit, or commission of: treason; alarming Her Majesty; intimidation of Parliament or a provincial legislature; inciting to mutiny; seditious offences; piracy and

- An indictable offence, other than those from *CCC* section 469;
- Release pending the determination or review of an appeal;
- Participating in the activities of a criminal organization, committing an offence on behalf of a criminal organization, and instructing the commission of an offence for a criminal organization;
- Financing terrorism or terrorism-related offences;
- Offences under the *Security of Information Act*,
- Weapons trafficking and use of a weapon[6] while committing a serious, violent offence[7];
- Indictable offences, other than those listed in *CCC* section 469, committed by a person who is not a resident of Canada;
- For offences committed while released by the court on an undertaking or recognizance and charged with one of the following: Failure to attend court, failure to comply with a condition of undertaking or recognizance, failure to appear or comply with summons, failure to comply with appearance notice or promise to appear, failure to comply with conditions of an undertaking, release pending a determination of appeal, review of appeal by the court, ;
- Offences under the *Controlled Drugs and Substances Act*, specifically, trafficking, importing and exporting, and production of illegal substances.

Pretrial Process in the United States

There are some differences between bail practices in Canada and the United States. In particular, the use of cash bonds to secure release and the use of pretrial risk assessment administered through pretrial service agencies.

Use of financial bonds

The use of cash bonds to secure release is much more common in America than in Canada (Pretrial Justice Institute, 2012b). In fact, as of 2006, monetary bonds were required in 70% of all cases, regardless of the fact that other non-financial release mechanisms are preferable (Pretrial Justice Institute, 2012b). Just as in Canada, presumption in favour of release exists in American legislation, and non-financial release conditions are available (National Association of Pretrial Services Agencies [NAPSA]; 2004; Pretrial Justice Institute, 2012b). Because financial bail has been found to be onerous for many defendants (Demuth, 2003; Demuth & Steffensmeier, 2004), organizations including the American Bar Association (2002) and NASPA (2004) have created standards that call for the use of monetary bail as a last resort, especially for defendants who do not pose a flight risk or endanger public safety. NAPSA (2004) Standard 1.2 calls for the release of most defendants on their own personal recognizance, or in cases where this is inappropriate, to impose the least restrictive conditions possible.

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piratical acts; murder; being an accessory to high treason or murder; bribery by a holder of a judicial office; and crimes falling under the jurisdiction of the *Crimes Against Humanity and War Crimes Act*.

[6] Includes firearms, crossbows, prohibited weapons, restricted weapons, prohibited devices, ammunition, or any other explosive devices.

[7] Attempt to commit murder, sexual assault with a weapon, aggravated sexual assault, kidnapping, robbery, and extortion (ss. 239, 272, 273, 279(1), 279.1, 344, or 346).

While commonplace, the use of financial bonds has not necessarily been linked to reduced pretrial failure rates. One study examined whether secured (monetary) bonds were more effective than unsecured bonds (released on recognizance) in improving FTA and re-arrest rates for released defendants (Jones, 2012). Using information from 1,970 cases across 10 Colorado counties, it was found that, for all risk categories,[8] unsecured bonds were just as effective at achieving court appearances and protecting public safety as secured bonds. Specifically:

- There were no significant differences in re-arrest rates between secured and unsecured defendants (all $ps > .16$);
- There were no significant differences in court appearance rates between secured and unsecured defendants (all $ps > .12$);
- Unsecured bonds free more jail beds because more defendants were able to post bonds (all $ps < .006$);
- While secured bonds had an effect on pretrial release rates—that is, the higher the bond the less likely a defendant was to be able to pay it—secured bonds had no effect on court appearance rates (all $ps > .09$);
- Unsecured bonds free up more jail space because the time to release is quicker than for defendants who are to be released with secure bonds[9]; and,
- The rates of absconding and being at large were similar between both release types.

PTRAs and pretrial service agencies

Aside from the differences in types of bonds used, one of the most important differences between American and Canadian bail practice lies in how risk is assessed. While in most Canadian regions "risk" is assessed through a judge's perceptions of a defendant's likelihood to engage in pretrial failure,[10] many American regions have moved towards empirically assessing a defendant's likelihood of pretrial failure through the use of objective risk assessments, collectively referred to as *pretrial risk assessments* (PTRAs). These tools are used to inform the judiciary which defendants pose a low risk of FTA for their court date and for being re-arrested while on pretrial release (NAPSA, 2004). The assessments are conducted by an officer from a designated *pretrial services agency* (PSA) as mandated under legislation.

Pretrial services agencies. In order to facilitate the administration of PTRAs, as well as to supervise defendants released pretrial, a special type of supervision agency, the pretrial service agency (PSA), has been created through statute in the United States. PSAs were created in the United States under the authority of the *Bail Reform Act* (1984) to address issues related to pretrial release. The number of agencies has steadily increased since their creation and PSAs are now found in most jurisdictions across the United States.

While their organizational structures vary, PSAs play the following crucial roles in the pretrial process:

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[8] As assessed by the Colorado Pretrial Assessment Tool (CPAT; Pretrial Justice Institute, 2012).

[9] This relationship only holds true for the first nine days of detention (Jones, 2012).

[10] Unless otherwise specified, throughout this report *pretrial failure* is conceptualized as either *failing to appear* (FTA) and/or *re-arrest* while on pretrial release. While the definition of pretrial failure varies from region to region, the criteria of FTA and re-arrest are the most commonly used (Clark & Henry, 2003).

1) **Conducting pretrial investigations** by gathering and verifying information about defendants to inform release decisions made by judicial officers (Clark & Henry, 2003; VanNostrand & Keebler, 2007)**.**

2) **Supervising defendants in community**, including monitoring compliance with conditions, reporting of noncompliance to courts, modifying conditions as necessary as set out in the range of conditions by the judge in the release order, notification to defendants of court dates, and if necessary, assisting defendants in appearing for court and facilitating the return of defendants to court if they abscond (NAPSA, 2004; VanNostrand & Keebler, 2007). Supervision is accomplished through many different methods (Clark & Henry, 2003):
    - Reporting by telephone or in person;
    - Referring defendant to substance abuse treatment;
    - Referring defendant to mental health treatment;
    - Drug testing;
    - Electronic monitoring;
    - Alcohol testing;
    - Appointing third-party custody over the defendant;
    - Requiring defendant to report to a day reporting centre; and,
    - Requiring defendant to remain in a halfway house.

    PSAs are urged to have a wide range of supervision options available to the courts (NAPSA, 2004). If PSAs do not have a wide range of supervision options available, judicial officers have limited options available for them in terms of bail sentencing (Clark & Levin, 2007).

3) **Conducting pretrial risk assessments** in order to assess the likelihood that a defendant will miss their court date or commit a new crime while on pretrial release (Clark & Henry, 2003; NAPSA, 2004).

4) **Issuing reminders to defendant to appear in court** (Clark & Henry, 2003; Clark & Levin, 2007; NAPSA, 2004; Pretrial Justice Institute, 2012b).

5) **Accurately capturing data on pretrial supervision outcomes**. This is done through calculating FTA rates and re-arrests (Clark & Henry, 2003). However, 45% of PSAs do not calculate FTA rates, and 71% do not calculate re-arrest rates.

Pretrial services agencies (PSAs) tend to serve one jurisdiction. As much as 88% of the time, a PSA in the United States services one city or one county (Clark & Henry, 2003). Approximately 46% of PSAs service a jurisdiction with a population between 100,000 and 500,000 persons. The average number of arrests per jurisdiction was 10,000, with 75% of agencies conducting less than 5,000 interviews per year.

In terms of administrative locus, 19% of PSAs were overseen by a sheriff's department, 29% by the courts, 31% by a probation department, and 8% by a non-profit organization (Clark & Henry, 2003). A more recent survey found that 38% of PSAs are housed in probation

departments, as of 2009 (Pretrial Justice Institute, 2009b). The average staff complement of a PSA is approximately 18 staffs, but 75% of programs started since 1990 have five or less staff (Clark & Henry, 2003). Only 25% of PSAs operate more than 12 hours a day, seven days a week, with the majority of programs only operating during court hours from Monday to Friday.

The type and amount of supervision services offered varies by jurisdiction. A 2010 survey of 112 jurisdictions in the United States was conducted to determine the types of supervision tools available for pretrial clients. It was found that 77% were equipped for drug testing, 62% were equipped for electronic monitoring, 58% had GPS tracking technology, 27% could conduct alcohol testing, 24% had day reporting centres, and 13% had halfway houses available as a supervision option (Pretrial Justice Institute, 2010).

Pretrial Detention

In both the United States and in Canada, approximately over half of the state and provincial prison population is accounted for by defendants who were detained pretrial rather than released, which represents a substantial increase over the past decade or more. Reasons postulated for the increase in the remand/detention population include the increasing number of high-risk defendants, increased enforcement of specific offences (including administration of justice charges), an increase in the average number of charges per defendant, and a decrease of discretionary release on the part of police agencies.

Pretrial detention in Canada

A similar trend is apparent in Canada. In 1988/89, remanded prisoners made up 26% of the average monthly count of non-federally incarcerated offenders (based on data retrieved from Statistics Canada). In 2013/14, this proportion increased to 53% of provincial and territorial prisoners. The remand population itself increased by 174% over this period of time, while the overall incarcerated population increased by 32%. In Saskatchewan, the figures have been similar. In 1988/89, remanded offenders made up 10% of the average monthly provincial prison population, and as of 2013/14, they made up 36%. Over this same time period, the overall average prison population count in Saskatchewan increased by 27%, but the remand population increased by 362% (see Table 1). Over the past 25 years, remand populations in Canada have grown significantly faster than other incarcerated populations.

Table 1. Average counts of offenders in selected jurisdictions, 1988/89 and 2013/14.

	All provinces/territories		Saskatchewan	
	1988-89	**2013-14**	**1988-89**	**2013-14**
Total population	16,436	21,704	1,318	1,672
Remand population	4,202	11,493	132	610

Source: Statistics Canada CANSIM Table 252-0005.

Nationally, over half (54.2%) of persons in custody are on remand (Deshman & Myers, 2014), suggesting that remand is one of the largest sectors of growth in the provincial prison population. While this trend would make sense if the crime rates were increasing, the opposite is true: crime rates are at their lowest since 1972 (Perreault, 2013; Webster, Doob, Myers, 2009).

The median number of days spent on remand was estimated at 8 days in 2008/09 (Porter & Calverley, 2011).

      Increase in administration of justice charges. It is theorized that the growing remand population is partly driven by an increase in administration of justice charges. Administration of justice charges make up a significant portion of charges in Canada, calculated to be around 10% of all criminal charges in adult court (Deshman & Myers, 2014). These charges have risen from 371.71 persons per 100,000 population in 2003 to 430.05 per 100,000 population in 2013 (Statistics Canada, CANSIM Table 252-0051). This trend is very significant in Saskatchewan, where fail to comply charges have increased exponentially (see Table 2).

Table 2. Administration of justice charges in Saskatchewan and Canada, 2003 and 2013.

	All provinces/territories		**Saskatchewan**	
	2003	**2013**	**2003**	**2013**
Fail to comply	208.34	248.05	668.93	1,087.21
Fail to appear	60.11	61.73	426.56	631.77
Breach of probation	79.86	98.61	283.70	391.87
Other	11.27	11.62	21.67	15.74

Note: Rate of persons charged per 100,000 persons in population.
Source: Statistics Canada CANSIM Table 252-0051.

      It is also noteworthy that, of all cases heard in criminal court in Canada in 2011/12, the most serious charge in 22% of the cases was an administration of justice charge (Boyce, 2013), with 44% of these charges being related to violating bail conditions (Deshman & Myers, 2014). Also, the rate of being found guilty for failing to comply with an order was found to be 69% for males and 62% for females during the time period of 2011/12 (Boyce, 2013). Interestingly, this is the third-highest rate of guilt, second only to breaching probation (79% females, 80% males) and impaired driving (84% females, 82% males)[11].

      Increase in charges and appearances. However, these statistics simplify a fairly complex matter. Many would argue that there is an overuse of administration of justice charges, which is creating a backlog of criminal court cases. However, it has also been noted that there has been an increase in the amount of charges brought against a defendant, from an average of 1.89 charges in 2001 to an average of 2.15 in 2007, reflecting an increase of 14% more charges over this time period (Webster et al., 2009). The implications of this are important as research has demonstrated that complex cases—cases having three or more charges—are more likely to result in the defendant be denied bail, and therefore detained in custody.

      To complicate matters further, judges are more likely to detain defendants who are appearing for charges related to the administration of justice. At the same time, it has been found that the number of appearances in order to resolve a bail case has increased drastically. In Ontario, for example, it took an average of 9.4 court appearances in 2007 to reach a final disposition in a bail case, an increase of 22% from 2001 (Webster et al., 2009). This speaks to the issue of expediency in the pretrial process and the importance of a streamlined approach.

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[11] When examining categories where the rates of males and females charged were similar.

Decrease in police use of discretionary release. It is also important to acknowledge the role of the police in the issue of remand. Police have discretion to choose to release an accused, usually on a citation, or to detain them for a bail hearing in front of a judge (Deshman & Myers, 2014; Webster et al., 2009). It has been suggested that part of the reason for the increased remand population is because of police officers' under-use of their powers of release (Deshman & Myers, 2014). Furthermore, an atmosphere of risk aversion is postulated to have resulted in more detention by police officers, more releases being contested by the Crown, and an increased amount of conditions placed on those who are released (Deshman & Myers, 2014; Myers, 2009).

Pretrial detention in the United States

Similar trends have been observed in the US. The amount of people on pretrial detention has increased exponentially (VanNostrand & Keebler, 2009; Lowenkamp & Wetzel, 2009). In fact, in the United States, 54% of pretrial defendants are detained in custody while awaiting their trial (Lowenkamp & Wetzel, 2009). The reason for this growth is explained through the increasing numbers of high-risk offenders (Lowenkamp & Wetzel, 2009; VanNostrand & Keebler, 2009), as well as a shift towards expanded enforcement (VanNostrand & Keebler, 2009; see Table 3). Because of these factors, the pretrial detention population has also grown, from a daily average of 5,400 in 1984 to a high of 56,000 in 2007.

It has been observed that detention is recommended by pretrial officers more than detention is actually maintained by judicial officers (Cadigan, Johnson, & Lowenkamp, 2012). The rate of recommendation for detention in the federal U.S. system has increased, from 56% in 2001 to 64% in 2007, suggesting a trend towards increased favour towards detention (Cadigan et al., 2012). Some policymakers argue that this is due to the increased risk characteristics that seem to be more prominent among federal defendants (Lowenkamp & Wetzel, 2009).

Table 3. Comparison of US enforcement changes (1985 – 2010).

	1985	**1995**	**2000**	**2005**	**2010**
Violent	4,361 (4.7%)	5,720 (5.7%)	6,036 (4.9%)	5,485 (3.8%)	4,567 (2.4%)
Property	29,971 (23.5%)	31,759 (31.5%)	28,423 (23.2%)	25,570 (17.9%)	28,839 (15.0%)
Drug	18,022 (19.3%)	31,686 (31.4%)	38,959 (31.8%)	40,038 (28.0%)	37,417 (19.5%)
Regulatory	7,644 (8.2%)	5,371 (5.3%)	5,737 (4.7%)	5,037 (3.5%)	5,235 (2.7%)
Immigration	7,239 (7.8%)	7,256 (7.2%)	16,495 (13.4%)	36,559 (25.6%)	85,545 (44.6%)

| Total Cases | 93,389 | 102,220 | 123,559 | 143,640 | 193,021 |

Source: Bureau of Justice Statistics (1990, 1998, 2002) & Motivans (2008, 2013)

Issues with Current Pretrial Practice

Because of the increased detention of pretrial defendants, certain problems related to this increase have become apparent. These include the potential negative impact of pretrial detention or remand, appropriateness of the conditions imposed and a lack of empirical support for the protective capacities of such conditions, and the culture of risk aversion.

Human impact of pretrial detention

In discussing remand numbers it is crucial to remember that these refer to human outcomes. While remand is necessary for the administration of justice, the overuse of it may lead to extremely negative outcomes for defendants. Because of the increase of the remand population, double-bunking or triple-bunking in correctional facilities are common practice, resulting in overcrowded living conditions and concerns regarding the safety of defendants (John Howard Society of Ontario, 2005). In Ontario, all defendants on pretrial detention are housed in maximum-security facilities, regardless of the defendant's alleged crime or criminal history. Further, programming and employment are not available to defendants, as they have not been found guilty, regardless of the fact that this is in contravention of the *Standard Minimum Rules for the Treatment of Prisoners*, of which Canada is a signatory (United Nations, 1977).

While the length of remand is fairly short—around eight days (Porter & Calverley, 2011)—prison admission severely disrupts a defendant's life and can lead to loss of employment, an inability to meet childcare responsibilities, and severe financial consequences (John Howard Society of Ontario, 2005). A significant problem with remand is that the standards of living afforded to defendants violates Article 10(2)(a) of the International Covenant on Civil and Political Rights, which states that "Accused persons shall, save in exceptional circumstances, be segregated from convicted persons and shall be subject to separate treatment appropriate to their status as unconvicted persons" (United Nations, 1976). That is, by housing defendants in the same facility, and under such extreme security, a de facto verdict of "guilty" is being delivered through current correctional practice.

While pretrial detention does not violate one's *Charter* rights, it has been found that pretrial detention is usually reserved for particular populations: the poor, the homeless, persons suffering with addictions, and persons with mental health issues (John Howard Society of British Columbia, 2013). Furthermore, because a finding of guilt is not certain, the loss of liberty while detained is troubling: "Given that approximately 35% of criminal charges in Canada never result in a finding of guilt, a significant portion of those held in pretrial custody… will serve time in prison, but will not be found guilty of any offence. These figures raise significant concerns about the unjustified infringement of liberty occasioned by the overuse of remand" (Tilley, 2012, p. 19). These factors should be given primary consideration in all decisions regarding the use of pretrial detention.

Effectiveness of conditions imposed

While 99% of all US federal defendants are released on conditions of some type, very little research has been conducted to determine which conditions are most likely to guarantee a defendant's appearance in court (Cadigan & Lowenkamp, 2011). This is problematic considering that the goal behind the imposition of conditions is to ensure a defendant's appearance in court.

In one of the few studies done, it was found that conditions imposed on low-risk defendants predicted increased pretrial failure (Cadigan et al., 2012; VanNostrand & Keebler, 2009). This relationship was observed for conditions such as the imposition of substance abuse testing and treatment, third-party custody, residing at a halfway house, and for electronic monitoring (Cadigan et al., 2012). The only condition that was helpful was mental health treatment, but only if an actual mental health need was present. This is not surprising considering that RNR-related research has shown that correctional programming for a low-risk offender may in fact increase recidivism (Andrews & Bonta, 2010).

A study conducted in Connecticut also found that the conditions most often adhered by were contact restrictions, while the conditions least likely to be adhered by were employment-related conditions (e.g., find a job) and calling the PSA to check in (Hedlund, Cox, Hines, Carollo, & Dwyer, 2005). Unfortunately this study did not examine the relationship between a defendant's level of assessed risk and the amount of conditions imposed on them. Clearly more research is necessary in this area in order to better understand the relationship between conditions and pretrial outcomes.

Risk assessment in a culture of risk aversion

Some authors argue that Canadian lawmakers are currently experiencing a high level of risk aversion when it comes to release decisions (Myers, 2009). That is, "the public does not seem to accept the reality that the correct decision made on the basis of all available evidence may not turn out to be a happy one. This intolerance of imperfection in assessing risk deconstructs defensible decision-making, as the decision is no longer defensible in a culture addicted to the allocation of blame. When precautionary measures and security systems fail the public looks to assign culpability rather than assessing whether the decision was a reasonable one to make" (Myers, 2009, p. 129).

What this means for criminal justice policy is that the focus in determining pretrial release shifts from the intent of the formal law—that presumption should be in favour of release—to a strategy of minimizing the risk of being blamed if a defendant reoffends (Myers, 2009). In this context, while risk assessment has become mainstream in other aspects of the criminal justice system, such as parole hearings, no equivalent level of risk assessment has been brought in to help judicial officers make decisions regarding release. This is troubling, as research has demonstrated that the most salient factor in the decision to release or detain a defendant is the seriousness of their current charge (Phillips, 2004). In a judicial culture that is concerned with maintaining public confidence in the administration of justice, it is postulated that many judges are erring on the side of caution, even if it violates the letter and intent of the law, in order to avoid what is deemed as unnecessary risk (Myers, 2009). Unfortunately, an

attitude of risk aversion may be contributing to the increasing remand population through a denial of granting judicial interim release.

Responses to Pretrial Issues

The detention statistics suggest that there are some challenges with the current functioning of the criminal justice system. In response to this, some regions are attempting to incorporate innovative new practices in order to address issues relating to the backlog of cases in the criminal justice system and the rising remand population.

For instance, video bail courts have found to be very efficient at processing more cases in a smaller amount of time, but have also been found to mainly adjourn cases to another day, suggesting that as they are currently conceptualized they are not reducing court workloads. Many U.S. jurisdictions have expanded their use of non-financial release conditions, which have the potential of increasing the amount of defendants who would be able to post non-financial bail. Researchers are also beginning to seriously evaluate various pretrial interventions in order to determine their effectiveness at decreasing pretrial failure. A number of large-scale structural changes have also been recommended for improving the bail system. Finally, an expanded focus on encouraging the use of PTRAs may also help to decrease the current systemic issues facing the criminal justice system. Part 2 of this report will address pretrial risk assessment in more depth.

Video court

Because of the increasing remand population, as well as the backlog in court processing (Webster et al., 2009), policymakers and bureaucrats have been looking for ways to improve pretrial-related outcomes. In many jurisdictions, various court efficiencies have been introduced in order to decrease the court backlog. One such innovation has been the expanded use of video remand court, which operates in several provinces including Alberta, Manitoba, Ontario, and Saskatchewan (Porter & Calverley, 2011).

A case study of the efficacy of bail court was conducted in Ontario, home to more than 40% of the Canadian population, and a jurisdiction where over half of all criminal court cases begin their lives in bail court (Webster, 2009). Of the cases heard in video remand court, 82.3% were for an initial bail hearing, with the remainder dealing with custodial offenders. It was found that the purpose of this court was only to hear release by consent cases; all other bail cases required the defendant to appear in person. The following facts were also found:
- Video bail court processed an average of 36.4 cases per day while operating for an average of an hour and a half, while regular court processed an average of 29.8 cases while operating for an average of six hours
- Video bail court held down 0.7% of all cases to another day (that is, that the case could not be heard on the specified day), compared to 29.5% of cases in regular court
- 48% of cases in video remand court could be processed within one minute or less, compared to 32% of cases in regular court. Additionally, while 7% of cases in regular

court took 20 minutes or more to process, no cases in video remand court required that amount of time

- 82% of all cases in video remand court were adjourned to another day and only 2% of all defendants were released, compared to an adjournment rate of 47% and a release rate of 31% in regular court, suggesting that video remand court is not aiding in reducing the overall workload within the court system.

While adjournments may be necessary in order for case preparation and information gathering (Deshman & Myers, 2014; Webster, 2009), studies indicate that the likelihood of a case being adjourned, regardless of whether it is the first or sixth appearance, are very similar (Webster, 2009). This finding suggests that video bail court may merely reflect a "culture of adjournment" (Webster, 2009, p. 114). While technology may assist in creating efficiencies, the reality is that it may contribute to inefficiencies. It is evident in this case study that very few cases brought before the video remand court are being processed through the bail process, regardless of the volume of cases being heard. These findings suggest that there are systemic issues within the current Canadian criminal justice system that propagate great delays for defendants in terms of processing.

Expanded use of non-financial pretrial release conditions

Many agencies have lobbied for the expanded use of non-financial release options in the United States. There are four types of non-financial release conditions that can be imposed: status quo condition, contact conditions, restrictive conditions, and problem-oriented conditions (Pretrial Justice Institute, 2012b).

Status quo conditions are conditions that require the defendant to maintain a certain level of stability and predictability in their lives, such as maintaining their current residence and employment status (Pretrial Justice Institute, 2012b). *Contact conditions* requires the defendant to report regularly to their assigned PSA, while *restrictive conditions* limit the defendant's movements and/or associations within the community. Finally, *problem-oriented conditions* are assigned to address issues specific to the defendant, such as substance abuse treatment or mental health treatment, in order to ensure the defendant's appearance in court and abstinence from criminal activity. All four conditions are evident in NAPSA's (2004) standards:
- Remaining under the supervision of a pretrial services agency while awaiting trial
- Restrictions of movement, activities, or associations, such as curfew orders, prohibitions on associating with certain individuals, or geographic restrictions
- Weapons prohibitions
- Abstention from drugs and/or alcohol
- A requirement to undergo evaluations for treatment (substance abuse, mental health, or physical health screening) or specialized court programs (such as drug court)
- A requirement to participate in mandatory urinalysis testing
- A requirement to participate in a treatment or supervision program
- Electronic monitoring
- House arrest

Although financial conditions are not imposed with the same frequency in Canada, based on the literature, this should be seen as an advantage of the Canadian pretrial model rather than a limitation.

Evaluation of pretrial interventions

In the United States, various pretrial interventions have been imposed on pretrial defendants as means to decrease pretrial failure. For example, defendants can be released on various conditions, which include electronic monitoring, house arrest, and substance and mental health treatment (NAPSA, 2004), which are intended to reduce their pretrial failure. However, very few evaluations of these interventions have been conducted.

In one of the few reviews on this subject (VanNostrand et al., 2011), the following findings emerged:
- Court date notifications have been found to be helpful in reducing FTA
- Implementation and program evaluations of drug testing have revealed that drug testing and monitoring do not decrease the rate of pretrial failure, and in some cases, may actually increase failures
- Electronic monitoring as a pretrial condition has not been found to reduce pretrial failure. However, it should be noted that in many cases, electronic monitoring is reserved for high-risk offenders,[12] which may partially explain the high pretrial failure rates for this group. Further research must be conducted about suitable risk levels associated with electronic monitoring as a condition
- Alternatives to detention should be applied according to the "risk principle" in the risks-needs-responsivity (RNR) model—target intervention to appropriate risk level (Andrews & Bonta, 2010; VanNostrand et al., 2011). Research has demonstrated that targeting low-risk defendants with alternatives to detention increases pretrial failure; that alternatives should target moderate to high-risk offenders, and should match a specific risk to a specific alternative to decrease the risk of pretrial failure (often without increasing or maintaining current level of pretrial failure)
- Pretrial supervision may or may not be effective. This is because there is no real clear way to evaluate pretrial supervision because of the varying standards across jurisdictions. However, some research suggests that gradated levels of supervision (i.e., may decrease pretrial failure

Systemic changes to bail process

In a report on the current state of bail, Deshman and Myers (2014) urge that a major overhaul of the current system is required. Recommendations for improving bail conditions are expansive, but could lead to a decrease in court backlogs and the remanded population:
- Policy manuals for Crown prosecutors should be updated to emphasize unsupervised release for low-risk defendants

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[12] Note that in many jurisdictions, this is not assessed objectively or empirically.

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- Bail supervision programs should be reserved for defendants who are most likely to face detention, and should not be done for every case
- Courts should be mindful of the effect that imposing certain conditions, such as no-contact clauses or curfew and movement restrictions, may have on the defendant's constitutional rights
- Conditions attached to release must be imposed with restraint, and when appropriate, no conditions should be imposed
- Conditions should not be imposed in order to assure court appearance when other methods, such as phone notification, would be just as effective
- Conditions related to substance abuse treatment should not be imposed while a defendant is on bail
- The benefits of treatment interventions for defendants on bail should be empirically evaluated. Also, governments should consider providing access to community-based treatment services without imposing treatment as a bail condition

Expanded use of pretrial risk assessment

In addition to these other changes, the development and implementation of PTRAs as tools to aid the judiciary in making release decisions may also help to alleviate some of the pressures within Canada's justice system. First, the use of PTRAs may encourage a calculated approach towards risk through helping the judiciary to place appropriate weight on the factors that have been demonstrated to increase the risk of pretrial failure, which they currently do not have strong guidelines for (Pretrial Justice Institute, 2012b, p. 27). Secondly, the use of PTRAs has been linked to a decrease in the detention population in the United States. It has been observed that pretrial services agencies that do not employ objective, empirically-validated risk assessments are twice as likely to operate in a court system that has jails that are over-capacity (Cooprider, 2009; Pretrial Justice Institute, 2009b). A related decrease may also be seen in the amount of bail-related cases, especially if PTRAs can be utilized early on in the bail process to screen out potential defendants for release. It should be noted that PTRAs will not affect the overall number of cases brought before the courts, only the number of charged individuals who are remanded.

Pretrial risk assessments (PTRAs) are instruments that assess the level of risk presented by a person on pretrial release in terms of their likelihood of *pretrial failure*. Specifically, this usually refers to the likelihood of a defendant *failing to appear* (FTA) for their court date, as well as the likelihood of the defendant being re-arrested for a new criminal charge while on pretrial release (Austin et al., 2010, 2012; Pretrial Justice Institute, 2012a). Collectively, FTA and being re-arrested before one's trial is referred to as *pretrial failure*. It should be noted that pretrial failure can be conceptualized very differently between jurisdictions, and therefore may include any heightened risk of re-arrest, reconviction, FTA, or receiving a charge or police citation (Austin et al., 2010; Austin et al., 2012; Bechtel et al., 2011).

Pretrial risk prediction began in the 1960s with the Vera Foundation's "Manhattan Bail Project," which led to the creation of the first PTRA (Gottfredon & Gottfredson, 1986). The aim of this scale was to help assess which defendants were at risk of FTA. The Vera instrument scoring was based on information concerning a defendant's residential stability, family ties and contacts, employment history, and prior criminal record (Gottfredson & Gottfredson, 1986; Pretrial Justice Institute, 2009a). While it was meant to be predictive of risk, the items included in the scale were not empirically derived, and it was later found that Vera scores accounted for only 2% of the variance in FTA or re-arrest rates. While the Vera tool was ineffective at predicting pretrial failure, it created momentum for the development of further PTRAs (Clark & Henry, 2003).

There are three types of risk assessment tools: screening instruments, comprehensive risks/needs assessments, and specialized tools (Latessa & Lovins, 2010). Screening instruments are usually fairly easy to complete, and are based wholly on static factors—that is, factors that are unchangeable (Latessa & Lovins, 2010). Most PTRAs would be classified as screening instruments, as many of the factors placing a defendant at risk of FTA or reoffending are static. However, it should be noted that PTRAs are not useful for treatment or case formulation, as these instruments do not assess for criminogenic needs. Furthermore, PTRAs should only be used in the context of what they are designed to measure—that is, that they should only be used for pretrial assessment of pretrial failure (Mamalian, 2011). For example, using a PTRA to help establish if an offenders should be granted parole or probation, especially if the client undertook any type of treatment, is a misuse of the tool (Latessa & Lovins, 2010). Because screening instruments rely on static factors, they are generally very high in reliability. The validity of the instrument, however, will vary greatly and depends on how it was constructed and whether it has been validated.

Some *pretrial services agencies* (PSAs) administer and score PTRAs prior to the defendant's first appearance in court, while others score the instrument after the first appearance (Austin et al., 2012). In many cases, the defendant's charges will influence whether they are released or detained pretrial, which means that certain defendants receive automatic detention. Generally, a PTRA examines a limited number of factors (between eight and ten) that have been found to predict pretrial failure (Pretrial Justice Institute, 2012a). These factors may vary from jurisdiction to jurisdiction. In the early stages of PTRA, instruments were designed only to be used at the county-level. However, validation studies have demonstrated that it is possible to

create instruments with state-wide predictive validity (Austin et al., 2012), and possibly with national predictive validity (see Laura and John Arnold Foundation, 2013).

Rationale for Pretrial Risk Assessment

The goal of PTRAs is to help judicial officers make informed decisions about who to release and who to detain (Pretrial Justice Institute, 2012a). It has been suggested in the literature that the potential benefits of improved bail decisions include increased public safety, protecting defendants' presumption of innocence, lead to a more efficient court and jail system, will improve the use of criminal justice and community resources, and will reduce disparities in decision-making through using objective criteria to assess risk (VanNostrand, 2003).

It has been found that often defendants most at risk of reoffending are often released pretrial, while many low-risk defendants are incarcerated and the reason for this disparity has been postulated to be the lack of using evidence-based processes to assess risk (Laura and John Arnold Foundation, 2013). Empirically-derived risk assessment can reduce bias through requiring raters to follow objective, rather than subjective, criteria, while improving how resources are used and ultimately, aiding in the protection of the public (Latessa & Lovins, 2010). Furthermore, through utilizing objective, rather than subjective, criteria, greater consistency can be achieved in pretrial recommendations (Cooprider, 2009; Grove & Meehl, 1996).

A number of factors have contributed to the expanded use of PTRAs in the US. These include of PTRAs include an ideological shift toward objective decision-making processes, the influence of pretrial detention on sentencing, and financial considerations for both the justice system and the defendants.

Shift toward objective decision-making

The move towards using PTRAs is consistent with the general move towards utilizing actuarial tools, as opposed to clinical judgment, in assessing the risk level of a defendant (Bechtel et al., 2011), and toward the use of evidence-based practices in general. In the US, it was found that only 10% of PSAs do not use some type of risk assessment (Mamalian, 2011).[13]

Research has indicated that actuarial risk measures are more accurate at classifying risk than clinical judgment (Bechtel et al., 2011; Latessa & Lovins, 2010; Lowenkamp & Wetzel, 2009), suggesting that the utilization of PTRAs may improve outcomes for offenders and limit the role that discretionary and discriminatory factors play in release decisions. Specifically, while legal factors (e.g., the crime at hand) play a primary role in deciding on pretrial detention (Spohn, 2008; Mamalian, 2011), extralegal factors, including race (Demuth, 2003; Leiber & Boggess, 2012; Leiber & Peck, 2013) and gender (Demuth & Steffensmeier, 2004; Spohn, 2008) have been found to influence detention decisions.

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[13] However, it should be noted that, of the agencies that do risk assessment, 48% of agencies have never validated their instruments (Clark & Henry, 2003; Mamalian, 2011).

For example, race and gender have been found to be prominent and influential factors in pretrial release decision-making (Demuth, 2003; Demuth & Steffensmeier, 2004). Specifically, these studies found that:

- African American defendants are 66% more likely to be detained pretrial than Caucasian defendants, and Hispanic defendants are 91% more likely to be detained pretrial than Caucasian defendants
- African American and Hispanic defendants are more likely to be detained on bail because they are unable to pay their cash bond
- Hispanic defendants are least likely to be released on a non-financial condition than either African Americans or Caucasians, and with a significantly higher mean bail amount when compared to other groups. The mean bail amount for male Hispanic defendants was $34,646,[14] compared to $23,387 for male African American defendants, and $21,646 for male Caucasian defendants
- African Americans are also more likely to be detained for violent offences than either Hispanics or Caucasians
- When examining bail amounts between males and females, females had significantly lower bail amounts: $24,322 for Hispanic defendants, $11,785 for African American defendants, and $16,230 for Caucasian defendants
- Females are 37% less likely to be detained than males across all racial groups

A report written by the John Howard Society of Ontario (2013) succinctly summarizes the issue: "More so than at any other stage of the criminal justice process, subjective assessments of accused persons, rather than objective processes or facts, are determining factors in decisions to ultimately release or detain individuals" (p. 8). The need for objective instruments is necessary in order to limit the influence of subjective factors in case decision-making. It has been found, for example, that charge severity is the most salient factor that is considered by judges in making pretrial release decisions (Phillips, 2004; Demuth & Steffensmeier, 2004). Furthermore, a prosecutor's recommendation for release or detention was also found to be very influential in judges' rulings (Phillips, 2004). What has also been found is that a release decision made by a PSA may also have a significant influence on release decisions (Phillips, 2004). PTRAs are designed to help pretrial staff make informed decisions about who to recommend for release and who to recommend for detention.

More favourable sentencing outcomes

It has been demonstrated that receiving pretrial release may result in more positive sentencing outcomes (Demuth, 2003; Cadigan & Lowenkamp, 2011; Hedlund, Hines, & Carrollo, 2007; John Howard Society of Ontario, 2005). One study found that detained individuals ultimately received significantly longer sentences than those who were given pretrial release (Hedlund et al., 2005). It has also been found that defendants who are detained are less likely to be acquitted and more likely to be incarcerated following their trial, especially if they pled not guilty (John Howard Society of Ontario, 2005).

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[14] Figures are in American dollars.

Suggested reasons for this effect are that defendants who are detained have decreased access to their attorneys, which has been postulated to lead to an increased amount of plea bargains for pretrial defendants (Cadigan & Lowenkamp, 2011). As well, pretrial detention creates negative perceptions of a defendant in the mind of a jury and judge (Cadigan & Lowenkamp, 2011).

Financial pressures on the justice system and defendants

The increase in the detention population has not necessarily led to increased resources for incarceration. Therefore, using PTRAs to help reduce jails that are filled overcapacity is necessary. It has been demonstrated that, on average, jail detention costs approximately $50 U.S. per day, while supervision in the community costs about $6 U.S. (Pretrial Justice Institute, 2012a). The move towards using PTRAs is therefore linked to potential cost savings.

Moreover, courts in the US are also beginning to realize that many defendants cannot afford to post bail or are delayed in posting bail due to the length of time required to access the necessary financial assets, which results in unnecessary and costly pretrial detention (Cohen & Reaves, 2007; Clark & Levin, 2007). Inability to post bail has been linked with jail overcrowding (Clark & Henry, 2003). This is especially problematic when examining the disproportionate amount of minorities on pretrial detention, which may be due to an inability to be able to post bail (Demuth & Steffensmeier, 2004). However, the use of PTRAs has been found to be linked to greater use of non-financial release options as well as to stable or decreasing occurrences of pretrial misconduct (Cooprider, 2009; Hedlund et al., 2007).

Concerns with Current PTRA Instruments

While PTRAs have great potential and utility, research into this area has highlighted issues that face a majority of these assessments. Specifically, a lack of definitional unity between measures, the use of overrides, instrument construction issues that decrease validity, subjective sentencing practices, and the influence of race and ethnicity on PTRA scores are all issues that must be considered in examining the utility of a PTRA.

Lack of definitional unity

A lack of definitional unity between measures has been found when examining PTRAs as a whole (Mamalian, 2011). That is, most instruments measure outcomes very differently, making it very difficult to assess the concurrent validity of instruments, as well as in the comparison of PTRA efficacy through meta-analysis. For example, certain jurisdictions record an FTA only if a warrant is actually issued, while other jurisdictions with count FTA even without an official warrant being issued. Also, jurisdictions respond to violations differently. Some try to solve the problem informally and do not count the incident in their statistics, while others do not. Furthermore, jurisdictions vary in how they measure recidivism, which can be conceptualized as re-arrest, reconviction, prison return with or without a new sentence, a petition to revoke pretrial release, or probation revocation (Siddiqi, 2006). Jurisdictions also vary in the length of follow-up for pretrial samples, making it very difficult to compare the predictive power between instruments.

The calculation of FTA rates can also be contentious. That is, FTA rates can be measured as *appearance-based FTAs* (calculating the difference between the amount of scheduled court appearances and the amount of appearances made; Mamalian, 2011) or *defendant-based FTAs* (whether a defendant had one or more FTAs during the length of their case; Mamalian, 2011; Siddiqi, 2006), and *wilful* and *non-wilful FTAs* (Siddiqi, 2006). A non-wilful FTA, for example, occurs when a defendant fails to appear but has a legal or verifiable reason for not appearing, such as hospitalization or incarceration. How FTA is conceptualized ultimately impacts how failure rates are calculated and will confound accurate risk calculation. It has been noted that the current trend in the pretrial literature is to move away from defendant-based FTA calculation to appearance-based FTA calculation (Mamalian, 2011).

Use of administrative overrides

Overrides are often added to PTRAs "based on a concern that if an error in prediction is made, the political or administrative stakes are too high for policy makers to admit that certain variables were not considered in the predictive decision" (Gottfredson & Moriarty, 2006, p. 193). Overrides are generally built in to certain instruments in order to allow room for the clinical judgment of the assessor (Gottfredson & Moriarty, 2006; Steinhart, 2006). However, if there are no checks and balances in place, the use of overrides may invalidate an instrument.

Certain instruments, especially those developed through the Juvenile Detention Alternatives Initiative (JDAI), have built-in override features to allow room for assessors to either release or detain a juvenile, based on what the assessor deems as relevant factors (Steinhart, 2006). The Annie Casey Foundation recommends that override rates of not higher than 15-20% be allowed within a jurisdiction (Steinhart, 2006). However, if overrides can be used indiscriminately for such a high percentage this introduces a lot of discretion into pretrial detention recommendations. For example, JDAI recommends that detention be recommended for youth who pose harm to themselves or to others or are gang-affiliated (Steinhart, 2006). While detention for persons in danger of self-harming may seem intuitive, incarceration is never supposed to be used for persons who are mentally unwell (United Nations, 1977).[15]

Furthermore, the types of variables considered for overrides are not always the variables that are most predictive of pretrial failure. For example, "offense seriousness (variously measured) is invariably considered by decision makers even though it is typically not predictive of criminological outcomes, whereas offense type, which is predictive of criminological outcomes, is invariably ignored by those decision makers" (Gottfredson & Moriarty, 2006, p. 193). Overrides pose a danger of promoting overly-conservative approaches to risk (Turner, Braithwaite, Kearney, Murphy, & Haerle, 2012). However, the recommendation to maintain overrides remains (Austin, 2004).

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[15] Article 82 of the *Standard Minimum Rules for the Treatment of Prisoners* explicitly state that persons who are insane should be treated in psychiatric hospitals, and persons who are "mentally abnormal" should be treated in specialized institutions under medical management (United Nations, 1977).

Lack of instrument validity

Quantitative vs. qualitative instruments. Using a quantitative instrument has been found to reduce the risk of FTA by .40 times, when compared to a qualitative instrument (Levin, 2007), although using a mixed instrument—one that is both quantitative and qualitative—also decreases the chances of FTA and re-arrest (Levin, 2007). However, one study found that only 23% of all PSAs rely exclusively on quantitative criteria for informing their risk assessments, while 42% use a combination of qualitative and quantitative criteria, and 35% exclusively use qualitative criteria (Clark & Henry, 2003). This situation may be improving as a more recent study reported that only 12% of PSAs still rely solely on subjective qualitative criteria for informing their decisions regarding risk (Pretrial Justice Institute, 2009b).

Lack of empirically-validated criteria. The issue of validity is of great consequence for the pretrial field. In terms of construction, most PTRAs have risk factors that have not been derived empirically, but are derived statutorily based on what state laws dictate that judges should consider a risk factor (Lowenkamp & Wetzel, 2009), or by consensus, using common factors from other instruments or studies, as well as incorporating local policies, in order to create the factors for the risk instrument (Steinhart, 2006). This approach is problematic because factors are derived at through "common sense" notions and factors that were found predictive in other contexts, but have not been evaluated within the local population. Further, points assigned to PTRAs are arrived at through a subjective process that does not rely on empirical evidence. This violates the evidence-based best practice approach, and can lead to an overuse of detention for defendants who may not necessarily pose a significant risk of pretrial failure.

Indeed, many of these factors do not have empirical validity to predict risk or have not been confirmed as valid for the population on which they are being used (Cooprider, 2009; Lowenkamp & Wetzel, 2009). For example, while the seriousness of current charges is a factor scored in many PTRAs, it has not been found to predict pretrial failure (Lowenkamp & Wetzel, 2009; Steinhart, 2006). In Canada as well, factors to be considered in a detention decision, based on statutory guidelines, include the defendant's criminal history, whether the defendant has any charges pending, the seriousness of the current charges, and whether the current charges were violent in nature (Minister of Justice and Attorney General of Canada, 2008).

Minimal instrument validation. Validation of an instrument is necessary in order to ensure its accuracy in capturing a particular variable of interest. However, only 42% of PSAs that have a risk instrument developed their instrument criteria based on the local population they serve (Pretrial Justice Institute, 2009b). Less than half (48%) of PSAs have validated their risk instrument, with eight percent claiming that it has been more than 10 years since their instrument's last validation (Clark & Henry, 2003). Further, it has been found that non-profit organizations are more likely to have validated their PTRA than PSAs overseen by sheriff's departments, suggesting that there are differences between private and public agencies in how they view the importance of instrument validation. One of the most common recommendations in the PTRA literature is for continued revalidation of PTRA instruments (Clark & Henry, 2003; Cadigan et al., 2012; Mamalian, 2011). The reason for this is that risk factors may change over time (Pretrial Justice Institute, 2009a). In a review of PTRA revalidation studies it was found that in many regions, factors predicting pretrial failure had changed significantly over time (Pretrial

Justice Institute, 2009a). Furthermore, in many cases, revalidation helped to refine the evaluated instruments through reducing redundant and non-significant predictors (Pretrial Justice Institute, 2009a).

Related to this issue, it should be noted that existing validated risk assessment tools are not appropriate for pretrial assessment. It has been determined that there is a unique set of risk factors evident for pretrial defendants, making it impossible to use post-conviction risk assessments for this group (Cadigan & Lowenkamp, 2011). This is mainly because risk is defined differently for pretrial and post-conviction—while pretrial risk examines FTA, post-conviction risk examines long-term recidivism (Cadigan et al., 2012). Therefore it is important that specialized tools are developed and validated.

Subjective sentencing practices

While PTRAs are being used with greater frequency, a looming problem is the lack of using legal and evidence-based practices (LEBPs) alongside PTRAs in order to inform sentencing outcomes (VanNostrand et al., 2011). That is, while jurisdictions may be using objective measures to quantify risk, recommendations for sentencing are still very subjective, and pretrial release conditions imposed are not necessarily congruent with best practices, nor are they matched to a defendant's actual risk-needs.

Potential influence of race and ethnicity on PTRA scores

Because race has been found to influence the likelihood of pretrial release, many risk assessment skeptics have argued that risk assessment plays a critical role in leading to these outcomes (Gottfredson & Gottfredson, 1986; Gottfredson & Moriarty, 2006). However, it has been pointed out that, due to how PTRAs are constructed that this is highly unlikely. For instance, it has been found that ethnic minorities tend to have a more substantial criminal history (as measured through past charges and convictions) than non-ethnic minorities (Pretrial Justice Institute, n.d.). However, no existing actuarial PTRA rely solely on the current number of charges or the defendant's past criminal history (Pretrial Justice Institute, n.d.). Furthermore, scores are not calculated linearly (i.e., a defendant's risk score does not increase based on each number of events; Pretrial Justice Institute, n.d.). Nonetheless, some scholars argue that it is impossible to remove race completely out of the PTRA risk level equation as many items used in prescriptive prediction are highly correlated with race (Gottfredson & Jarjoura, 1996). It is advised that instrument developers take care to ensure that racial bias is not accounting for the variance in scores (Pretrial Justice Institute, n.d.).

In summary, pretrial risk assessments (PTRAs) are instruments that assess the level of risk of a person charged with the commission of certain offences. These instruments assess the risk level of the defendant to engage in pretrial failure, which is usually measured as either FTA or re-arrest while on pretrial release. The need for PTRAs lies in the expanded use of risk assessment at all stages of the criminal justice system, and encourage the use of objective, rather than subjective assessment of pretrial risk. Due to detention disparities based on gender and ethnicity, it has been suggested that PTRAs can help to decrease the amount of discretion that occurs in determining who should receive pretrial detention. As well, many jurisdictions are

recognizing that defendants may end up being detained due to an inability to post financial bail. Because more favourable sentencing outcomes are linked to pretrial release, PTRAs may help to release more low-risk defendants who otherwise would remain on detention until their trial.

However, PTRAs are faced with various problems, including a lack of definitional unity between various PTRA measures; the use and overuse of built-in overrides; methodological concerns related to instrument construction, including the validity, validation, and use of empirical factors in the construction of the instrument; and issues related to accounting for race-related variance in the instruments. However, none of these problems are insurmountable if using evidence-based best practices while relying on the empirical identification of factors and controlling for variance through proper statistical modelling. PART 3 will examine a list of instruments created for pretrial use in the United States, designed to assess risk at the city, judicial district or county, state, and national levels, as well as instruments designed specifically for juveniles.

While there are multiple PTRAs in use, the ones selected for this literature review met certain criteria. First, the risk factors selected and weighted based on statistical modelling and current best practices in the pretrial risk assessment field. Second, the instruments were created after 1985. Third, the instruments were publicly accessible to researchers. While there are other instruments that have been created, because they were not accessible for evaluation, they were not included. The PTRAs are divided into five sections based on geographical range: city-level instruments, county-level or judicial district-level instruments, state-wide instruments, national instruments, and juvenile instruments. A final section lists instruments found in the literature review that were not included, and also provides reasons for their exclusion. All of the reviewed tools are currently in use in the United States.

The following section is a detailed overview of each of the 18 instruments identified and their supporting literature. However, Part 4 of this report synthesizes these findings with a review of the identified factors and their empirical support across validation studies.

City-Level Pretrial Risk Assessment Tools

New York City Pretrial Risk Assessment Instrument: Siddiqi (2002, 2006)

In a comparison between two models of the same PTRA (the 1998 model and the 2001 model; Siddiqi, 2002), it was found that the factors across both models similarly predicted pretrial failure rates. The major differences were found in the magnitude of the results. Certain predictor variables were significant in the 1998 model, but not in the 2001 model. The major variable was whether a defendant had a verified address within New York City.[16] As well, the 2001 model was designed to predict both Criminal Court, as well as Supreme Court pretrial failures. Some minor adjustments were made to the 2001 model so that cut-off scores were more sensitive to pretrial failure.

Odds ratios indicated that the risk pretrial failure were lower for persons who expected someone to attend their arraignment (OR=0.833, $p<.001$). However, the odds of pretrial failure in the 2001 sample were higher for persons:
- Without a telephone (OR=1.277, $p<.001$) compared to those with a telephone (OR=0.822, $p<.01$).
- Without verified education/schooling/training (OR=1.101, $p<.05$) compared to those with verified education/schooling/training (OR=0.844, $p<.01$)
- Without a verified New York City address (OR=1.441, $p<.001$) compared to those with a verified New York City address (OR=0.908, p=n.s.), or with a New York City address verified through a third-party source (OR=0.671, $p<.001$)
- With a prior FTA (OR=2.107, $p<.001$)
- With a current open case (OR=1.286, $p<.001$)

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[16] There were some changes in the p-values as well, where some factors increased (from $p < .001$ to $p < .01$); however, the author felt that these changes did not impact the overall model in a significant manner (Siddiqi, 2002).

A new point scale was created, with a range from –12 to +12, where a negative score indicated an increased risk for pretrial failure, and a positive score indicated decreased risk for pretrial failure. Three risk groups were developed, based on one's score on the pretrial measure: Group I (low risk; a score of 7 and higher), Group II (moderate risk; a score between 1 and 6), and Group III (a score of 0 or lower). Out of the overall 2001 sample of 25,278 defendants, FTA rates based on group assignment are as follows:

- Group I: 9% (*n* = 1,039);
- Group II: 16% (*n* = 1,156);
- Group III: 26% (*n* = 1,776);
- Average over all three groups: 16% (*n* = 3,971).

A revalidation in 2006 examined 27,630 docketed cases who were granted some form of pretrial release in New York City. It was found that 10% of the sample FTA, 12% were re-arrested, and 6% both FTA and were re-arrested, suggesting that 72% successfully completed pretrial release without a re-arrest or FTA. When examining violent felony arrests while on pretrial release, only two variables were significant: the defendant's age at initial arrest and their graded offence type at initial arrest. That is, younger defendants were more likely to be re-arrested for a violent felony offence, and defendants who were initially arrested for a violent felony offence were more likely to be re-arrested for a violent felony offence. Interestingly, defendants initially arrested for a drug charge were less likely to be re-arrested for any type of drug charge. Other results:

- Having a telephone or cellular phone decreased the risk of re-arrest (OR=0.81, *p*<.001), while not having a telephone increased odds of re-arrest (OR=1.17, *p*<.001)
- Having verified employment/schooling/training decreased the odds of re-arrest (OR=0.73, *p*<.001), while not having verified employment/schooling/training increased the odds of re-arrest (OR=1.41, *p*<.001)
- Being male increased the odds of re-arrest (OR=1.44, *p*<.001)
- Being older decreased odds of re-arrest (OR=0.96, *p*<.001)
- Being African American (OR=1.22, *p*<.001) and Hispanic (OR=1.10, *p*<.01) increased odds of re-arrest
- Having a case before the Supreme Court decreased odds of re-arrest (OR=0.25, *p*<.001);
- Prior FTA increased odds of re-arrest (OR=1.55, *p*<.001)
- Having another open case before the courts increased odds of re-arrest (OR=1.44, *p*<.001)
- Being charged with a class A felony[17] (OR=0.50, *p*<.001) decreased the odds of re-arrest, while being charged with a class E felony (OR=1.27, *p*<.001) or a class A misdemeanor (OR=1.28, *p*<.001) increased the odds of re-arrest

When examining pretrial failure as a whole, the following variables were significant:
- Having a telephone or cellular phone decreased the risk of pretrial failure (OR=0.83, *p*<.001), while not having a telephone increased odds of pretrial failure (OR=1.32, *p*<.001)

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[17] A *class A felony* in New York State is a violent offence punishable by life imprisonment. A *class E felony* is an offence (violent or non-violent) punishable by probation for one to four years. A *class A misdemeanor* is punishable by more than 15 days, but less than one year, in jail.

- Having verified employment/schooling/training decreased the odds of pretrial failure (OR=0.81, $p<.001$), while not having verified employment/schooling/training increased the odds of pretrial failure (OR=1.22, $p<.001$)
- Having verified New York City address decreased the risk of pretrial failure (OR=0.74, p<.001), while not having a verified address increased risk of pretrial failure (OR=1.21, p=.003)
- Being female decreased the risk of pretrial failure (OR=0.83, p<.001)
- Being older decreased the risk of pretrial failure (OR=0.97, p<.001)
- Being Caucasian decreased the risk of pretrial failure (OR=0.88, p=.002), while being African American (OR=1.22, p<.001) and Hispanic (OR=1.10, p=.003) increased odds of pretrial failure
- Prior FTA increased the odds of pretrial failure (OR=1.86, p<.001)
- Having another open case before the courts increased the risk of pretrial failure (OR=1.33, p<.001)
- A prior misdemeanor conviction increased the odds of pretrial failure (OR=1.25, p<.001), while a prior felony conviction was not significant
- In terms of felony-level offences at initial arrest, being charged with violent (OR=0.71, p<.001), property (OR=0.82, p<.001), drug (OR=0.79, p<.001), and public order (OR=0.80, p<.001) offences decreased the risk of pretrial failure
- In terms of misdemeanor-level offences at initial arrest, being charged with violent (OR=0.97, p<.001) offences decreased the risk of pretrial failure, while being charged with property (OR=1.28, p<.001), drug (OR=1.37, p<.001), or public order (OR=1.23, p<.001) offences increased risk of pretrial failure

It should also be noted that borough of arrest was significant, with defendants from the borough of Staten Island having significantly higher odds of pretrial failure (OR=1.30, p<.001). However, due to organizational policy, borough and ethnicity variables were removed from the final scale as a means to reduce discrimination in the measure. The final measure also included a community tie variable (whether the defendant expects someone at their arraignment, which was found to be a significant predictor for FTA). The final instrument lists the following variables of significance:
- Having a telephone or cellular phone
- Expecting someone at defendant's arraignment hearing
- Having verified employment/schooling/training
- Having a verified NYC address
- Having a prior FTA
- Having current open cases before the courts
- Having prior misdemeanor convictions

Risk categories were low risk (score of 7 to 12), moderate risk (score of 3 to 6), and high risk (a score of –12 to +2). ROR recommendation guidelines were also established. Defendants with a score range of 7 to 12 were recommended for ROR; a score of 3 to 6 were considered a moderate risk for ROR; and defendants with a score between –12 and +2 were not recommended for ROR due to being a high risk for FTA. Finally, in evaluating the new guidelines and risk categories, it was found that the new model exceeded the predictive ability of the original

instrument, suggesting that the revalidated instrument was more accurate in classifying defendants' levels of risk.

County-Level or Judicial District Pretrial Risk Assessment Tools

Lake County Pretrial Risk Assessment Instrument (LCPRAI; Cooprider, 2009)

The LCPRAI was based on the Virginia Pretrial Risk Assessment Instrument (VanNostrand, 2003; see "State-Wide Risk Assessments" below). As with most other scales, the LCPRAI does not recommend a specific outcome (i.e., to detain or release a defendant), but categorizes defendants based on their overall risk level. Alongside the implementation of this instrument, the Lake County Pretrial Services Agency also sought to match supervision needs to how often officers made contact with the defendants. One of the main goals in using a PTRA was to reduce officer contacts with defendants by correctly classifying offenders based on their assessed risk for pretrial failure. Prior to the implementation of the LCPRAI, defendants were assigned to either Level I (more contact) or Level II (less contact) supervision. After the LCPRAI implementation, defendants were assigned to minimum, medium, or maximum supervision levels. Contacts were made either through field visits (home visit), phone calls, an office visit (defendant appearing at agency office), and a court reminder phone call. Table 4 reviews the former standards, as well as the new proposed contact standards.

It was found that, accounting for all FTAs, arrests for a new crime, and technical violations, that the rate of pretrial failure decreased from 32% to 28% over a four-year period. In the final year of this evaluation, FTA rates had dropped from 17% to 13%, and technical violations had dropped from 11% to 7%. However, new arrests had increased from 4% to 8%, which may be due to the implementation of the new supervision requirements. Further evaluations must be conducted to elucidate this finding.

Table 4. Former versus new contact standards: Lake County Pretrial Services.

	Field Visits	Office Visits	Phone Calls	Court Reminders
Original Standards				
Level I	4 per month	On court date	3 per week	Every court date
Level II	3 per month	On court date	3 per week	Every court date
New Standards				
Minimum	Residence verification	1 per month	1 per week	Every court date
Medium	1 per month	1 per month	1 per week	Every court date
Maximum	2 per month	2 per month	2 per week	Every court date

Source: Cooprider (2009)

Minnesota Fourth Judicial District Pretrial Evaluation Scale (PES; Podkopacz, Eckberg, & Kubits, 2006)

Of the initial 12 questions on the PES, it was found that only four came up as statistically significant predictors of pretrial failure:

- Employment (working 20 hours or less per week, or being unemployed and not a student)
- Age at time of arrest (being 21 years or younger)
- Prior history of FTA (having at least one FTA in past three years)
- Summed score of one's prior criminal history[18]

It was also found that having an offence on the Judicial Review List[19] decreased the chances of pretrial crime, whereas the other factors were related to increased likelihood of failure. This five-factor model was found to be the most parsimonious, and was able to predict pretrial failure 77% of the time. However, the final model consists of nine items. While only five were found to be statistically significant predictors of pretrial failure, due to statutory requirements, four additional *non-predictive* items were added:
- Whether the index offence was a felony not on the Judicial Review List
- Whether a weapon was used in the commission of the offence
- Whether the defendant lives alone
- Whether the defendant has been a resident of Minnesota for less than three months

Certain possible biases were found when evaluating the scale's performance. It was found that race was significantly correlated with living alone, age at time of arrest, and use of a weapon. Specifically, it was found that Caucasians were more likely to live alone, and this was found to be unrelated to either FTA or pretrial arrest due to the commission of a crime. Ethnic minorities were found to be more likely to use a weapon during the commission of a crime. This factor was related to FTA outcomes, but not to pretrial arrest. Age was related to FTA, but not pretrial arrest, at a significant level for ethnic minorities. That is, ethnic minorities were more likely to be younger at time of arrest than Caucasian defendants.

As well, it was found that probation officer overrides of the scale recommendation did not improve the odds of predicting who would commit a pretrial crime. However, probation officer overrides were found to be statistically significant in predicting FTA, though specifically only for white defendants, for whom overrides were also statistically more likely to be requested. Content analysis found that common reasons for override requests included identified issues of victim safety, substance use, or mental health issues, as well as a lack of access to critical information (e.g., unable to contact the victim or access the police report).

Allegheny Pretrial Services Risk Assessment (Clark & Levin, 2007)

This risk assessment was developed as part of a major overhaul of the Allegheny County PSA conducted by the Pretrial Justice Institute. Goals of this agency overhaul included bringing current practices into line with the NAPSA (2004) standards. An evaluation was conducted of their interim risk assessment and changes were made in order to bring the interim PTRA in line with validated factors.

The new PTRA was developed based on five domains: criminal history, current charge, age, community ties, and personal health. Personal health (i.e., drug dependency, alcohol

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[18] This was calculated by the total score on four criminal history questions: 1) Prior felony or gross misdemeanor person conviction; 2) Each prior Misdemeanor Person conviction; 3) One or more prior other felony conviction; and, 4) One or more prior other gross/misdemeanor conviction.

[19] Serious offences against another person (e.g., homicide, manslaughter, assault, criminal sexual misconduct).

dependency) and community ties (i.e., owning one's home, being employed, length of time at current address) variables were excluded from multivariate analysis due to missing data. Bivariate analyses found that being charged with a violent offence, being charged with weapons use, and whether the charge was a felony or misdemeanor were not statistically significant in predicting pretrial failure. However, multivariate analyses (logistic regression) found the following six predictors to be significant for FTA:

- Being charged with a violent, property, or drug offense, instead of a public order offence
- Defendants whose most serious charge is a misdemeanor rather than a felony
- Having three or more prior misdemeanor convictions, compared to defendants who do not have three or more misdemeanor convictions
- Having less than three prior felony convictions
- Having two or more prior FTAs
- Being under 21 years of age at the time of their preliminary arraignment

The following three factors were found significant for a new arrest:

- Being charged with a violent, property, or drug offense, instead of a public order offence
- Having two or more prior FTAs
- Being under 21 years of age at the time of their preliminary arraignment

Even though the social factors were not found to be statistically significant, they were also included in the overall PTRA.[20] The validated PTRA included the following items:

- Most serious current charge not involving violent, property or drug offense
- Two or more prior felony or misdemeanor convictions
- Defendant is on probation, parole, pretrial release or has an outstanding arrest warrant
- Defendant has TWO prior failures to appear in court
- Defendant has THREE OR MORE prior failures to appear in court
- Defendant has history of alcohol or substance abuse
- Defendant is under age 21 at time of preliminary arraignment
- Defendant owns his or her own home
- Defendant is employed

Risk categories were calculated as follows: low risk (score of –7 to –2), medium (–1 to 3), and high (4 to 8). Low risk defendants were recommended for release on recognizance (ROR), medium risk defendants were recommended to have a supervised release, and high risk defendants were recommended for detention. Results indicate that, should the new PTRA be implemented, appearance rates would increase from 72% to 85%.

District of Columbia PSA Pretrial Risk Assessment (Winterfield, Coggeshall, & Harrell, 2003)

This PTRA was validated on 7,574 cases processed in the District of Columbia. The instrument consists of 22 items:

- Is the defendant a U.S. citizen?

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[20] This may be due to a belief that a larger sample size would find these factors to be significant.

- Does the defendant live with other family members?
- What is the defendant's age in years (up to 81)?
- How many of today's charges are for *Bail Reform Act*[21] offenses?
- How many of today's charges are for obstructing justice?
- How many of today's charges are for person offenses?
- How many of today's charges are for public-order offenses?
- Are any of today's charges for property offenses?
- How many charges are pending against the defendant in D.C?
- How many person charges are pending against the defendant in D.C.?
- How many criminal convictions has the defendant received in D.C.?
- How many criminal convictions for person offenses has the defendant received in D.C.?
- How many criminal convictions has the defendant received in D.C. Superior Court?
- How many criminal charges have been filed and disposed against the defendant in D.C.?
- Excluding today's arrest, how many times has the defendant been arrested in D.C.?
- Has the defendant been arrested in a jurisdiction other than D.C.?
- How many FTA-related bench warrants have been issued against the defendant in D.C.?
- How many invalid drug tests have been recorded for the defendant in DTMS?
- How many valid tests for hard drugs or marijuana use has the defendant ever submitted in D.C.?
- How many valid tests for hard drugs or marijuana use has the defendant submitted in the past 30 days?
- How many times has the defendant tested positive for hard drugs in the past 30 days?
- How many self-reports of hard drug or marijuana use has the defendant made in the past 30 days?

Five risk categories were created with distinct cut-off scores: Low, Condition Monitoring, Moderate, High, or Severe. Low risk defendants were recommended for pretrial release without conditions; conditioning monitoring defendants were released on their recognizance with non-restrictive conditions (e.g., the surrender of one's passport); moderate risk defendants received more restrictive conditions, such as drug testing and curfews; high risk defendants were released under strict supervision conditions (e.g., residing under a halfway house or under intensive supervision), and severe risk defendants were recommended to be detained until their trail. Results indicated that the instrument accurately predicted pretrial failure 80% of the time among District of Columbia defendants.

Iowa Fifth Judicial District Pretrial Release Point Schedule (Prell, 2008)

This instrument was designed for use among defendants appearing in Iowa's fifth judicial district. Factors on this scale include:
- Length of time at current residence
- Family ties
- Current employment
- Current education level

[21] *Bail Reform Act* offences are related to a defendant violating the conditions of their pretrial release.

- Criminal record
- Miscellaneous factors (prior FTAs, present drug or alcohol use, obvious mental health issues)

It was found that the current point schedule accurately predicted FTA, in that defendants who were ineligible for release but were released anyway had a higher FTA rate than those deemed eligible for release (MCR=.445)[22]. The point scale was also found to be predictive of FTA risk for males (MCR=.531), but not for females (MCR=.000).

Of the individual factors on the point scale, current residence, home ownership, current employment, current education, and criminal history were found to be good predictors of FTA. Family ties, prior number of FTAs, substance abuse, and mental health issues were not significant. However, it should be noted that this study is plagued by small sample sizes and a very small number of defendants who FTA; therefore, the results must be interpreted very cautiously. What bolsters these results, however, is the concurrent validity that some of these factors have with factors found in other research to be significantly related to pretrial failure.

Another factor that needs to be considered is that race was found to significantly relate to FTA. Specifically, being African American predicted FTA (MCR=.738), suggesting that factors may be related to race, which in turn may mean that a disproportionate amount of African American defendants will be detained. It was found that by revising the scale to include new cut-offs, that an additional 28.7% African American defendants would be released on bail, decreasing the eligibility disparity between Caucasian and African American defendants from 10.4% to 4.3%; however, the underlying systemic bias remained unaddressed in the measure.[23]

State-Level Pretrial Risk Assessment Tools

Virginia Pretrial Risk Assessment Instrument (VPRAI; VanNostrand, 2003; VanNostrand & Rose, 2009)

The VPRAI was developed out of a sample of 2,348 cases collected, between July 1, 1998 and June 30, 1999 across varying regions of the Commonwealth of Virginia. All cases were tracked until they reached their final disposition. Over 50 different variables were examined, in order to determine which variables were linked with pretrial failure, defined in this case as either FTA or being re-arrested for a new offence.
Nine risk factors were identified (VanNostrand, 2003; VanNostrand & Rose, 2009):
- *Charge type*: Defendants charged with a felony were more likely to fail pending trial than defendants charged with a misdemeanor

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[22] Mean cost ratio (MCR) is a special case of Somers' *d*, with a score ranging from 0 (no prediction of event) to 1 (perfect prediction of event). "For a device to show any utility for screening or predictive purposes, it must demonstrate a value of MCR of at least .250 and a value of at least .350 to significantly improve on existing judgments" (Fischer, 1985).
[23] It is worth noting that under the new point system, eligibility is higher among Hispanic (96.5%) and Asian/Pacific Islander (94.7%) ethnic groups, compared to Caucasian (92.1%) defendants. However, eligibility is lower for Native American (66.7%) and African American (87.8%) defendants, suggesting that race is an influential factor in this scale.

- *Pending charge(s)*: Defendants who had pending charge(s) at the time of their arrest were more likely to fail pending trial
- *Outstanding warrant(s)*: Defendants who had outstanding warrant(s) in another locality for charges unrelated to the current arrest were more likely to fail pending trial
- *Criminal history*: Defendants with at least one prior misdemeanor or felony conviction were more likely to fail pending trial
- *Two or more FTA convictions*: Defendants with two or more failures to appear were more likely to fail pending trial
- *Two or more violent convictions*: Defendants with two or more violent convictions were more likely to fail pending trial
- *Length at current residence*: Defendants who had lived at their current residence for less than one year were more likely to fail pending trial
- *Employed/primary child caregiver:* Defendants who had not been employed continuously at one or more jobs during the two years prior to their arrest or who were not the primary caregiver for a child at the time of their arrest were more likely to fail pending trial
- *History of drug abuse*: Defendants with a history of drug abuse were more likely to fail pending trial

The factors were then weighted to create a risk measure with a score range of 0 to 10. Risk levels were assigned based on the following score cutoffs: Level 1 (score of 0 to 1), Level 2 (score of 2), Level 3 (score of 3), Level 4 (score of 4), and Level 5 (a score of 5 or more). The higher the risk level, the higher was the defendants' risk of pretrial failure. Testing proportions between groups determined that there were no statistically significant differences between scores based on gender (male or female), race (Black or White), income level (below median income or equal or above median income), or community size (small urban[24], large urban, rural, or mixed). Results indicated that the VPRAI accurately classified offenders into risk categories, as evidenced by increasing failure rates when moving from Level 1 (10%) to Level 5 (53%). A re-validation of the VPRAI in 2009 found that having outstanding warrants did not significantly predict pretrial failure, and that reducing the VPRAI to eight factors increased its predictive validity (VanNostrand & Rose, 2009).

VanNostrand et al. (2011) conducted an evaluation of the VPRAI alongside pretrial release guidelines in the Commonwealth of Virginia. Using their electronic case management system, it was found that pretrial release was recommended in 54.7% of all cases (out of a possible 23,206 cases), with 54.9% of defendants released on unsecured bail with a condition of community supervision, and 45.1% of defendants released on secured bail with a condition of community supervision. It was also found that 84.3% of cases were closed as successful—that is, that they completed their pretrial release without any type of failure—while the remainder of cases were unsuccessful due to FTA (5.2%), new arrest (2.8%), or technical violation (7.6%).

Consistent with other PTRA tools, it was found that as VPRAI risk level increased, failure rates across all categories (FTA, new arrest, and technical violation) also increased. It was

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[24] Small urban defendants at Level 5 had a base failure rate that was significantly higher than the comparison group. However, this may be due to a small sample size (*n*=31) at this risk level. Furthermore, a higher failure rate is expected for a higher-risk group; therefore, these defendants were not incorrectly classified.

also found that bail type increased pretrial success at a statistically-significant level: defendants released on an unsecured bail had a success rate of 85.4%, while defendants on secured bail had an overall success rate of 83.0%. However, when examining this finding by risk level, outcomes were not statistically significant. As well, in a multivariate logistic regression model, release type was not a statistically significant predictor of success when controlling for risk level.

It was also found that the type of charge was significant in examining outcomes. Defendants charged with traffic (driving under the influence) and violent offences were found to be the most successful, while defendants charged with drug and theft or fraud offences were the least likely to be successful. As well, defendants charged with FTA were no more and no less likely to be successfully complete pretrial release. When conducting a multivariate logistic regression model controlling for risk level, defendants with drug, theft or fraud, or weapons offences were more likely to be unsuccessful than defendants charged with violent offences. Further, defendants with violent charges were more likely to be successful when compared to defendants in all other categories.

In the 2011 evaluation, a set of guidelines were also created in order to guide pretrial services agencies in applying legal and evidence-based practices in order to guide pretrial release. This was done in order to help maximize supervision while also maintaining the legal rights of the defendant (i.e., the presumption of innocence until proven guilty) while ensuring the protection of the public and the utilization of best practices to maximize positive pretrial outcomes. Three supervision levels were proposed, summarized in Table 5.

Table 5. Supervision level requirements for Virginia Pretrial Risk Assessment Instrument.

Level I	Level II	Level III
Court date reminder for every court date	Court date reminder for every court date	Court date reminder for every court date
Criminal history check before court date	Criminal history check before court date	Criminal history check before court date
Face-to-face contact once a month	Face-to-face contact every other week	Face-to-face contact weekly
Alternative contact once a month (telephone, e-mail, text, or others as approved locally)	Alternative contact every other week (telephone, e-mail, text, or others as approved locally)	
Special conditions compliance verification	Special conditions compliance verification	Special conditions compliance verification

Kentucky Pretrial Risk Assessment (KPRA; Austin et al., 2010)

In Kentucky, commercial bail bonding is illegal. Therefore, the state handles all release decisions regarding pretrial detention. A validation was conducted of this instrument, as this instrument had not previously been evaluated by an external agency for its validity and reliability. This was especially important because the Kentucky instrument had been developed using other PTRAs as a template, without any indication that the items on the instrument were valid for a different geographical sample. KPRA is a 13-item measure, which categorizes

defendants as either a low, moderate, or high risk of failing to appear (FTA) or for re-arrest prior to appearing before the court. Three items are scored if the defendant answers no:

- Does the defendant have a verified local address and has the defendant lived in the area for the past 12 months?
- Does the defendant have verified sufficient means of support?
- Did a reference verify that he or she would be willing to attend court with the defendant or sign a surety bond?

The remaining ten questions are scored if the defendant answers yes:

- Is the defendant's current charge a Class A, B, or C felony?[25]
- Is the defendant charged with a new offense while there is a pending case?
- Does the defendant have an active warrant(s) for failure to appear prior to disposition? If no, does the defendant have a prior FTA for felony or misdemeanor?
- Does the defendant have prior FTA on his or her record for a criminal traffic violation?
- Does the defendant have prior misdemeanor convictions?
- Does the defendant have prior felony convictions?
- Does the defendant have prior violent crime convictions?
- Does the defendant have a history of drug/alcohol abuse?
- Does the defendant have a prior conviction for felony escape?
- Is the defendant currently on probation/parole from a felony conviction?

A risk score is then calculated using the following cut-offs: A low-risk defendant would receive a score between 0 to 5, a moderate-risk defendant receives a score between 6 to 12, and high-risk defendant scores 13 or above. However, it was not specified which cut-off scores lead to a recommendation of release.

Data were gathered from 38,478 persons released pretrial, between July 1 and September 30, 2009. Data were calculated for failure to appear (FTA) rates, re-arrest rates while on pretrial release, and either a FTA or re-arrest. It was found that the overall FTA rate was approximately 8%, the overall re-arrest rate was approximately 7%, and the composite percentage of persons who either failed to appear or were re-arrested was 14%.

In addition to risk classification, the use of special conditions in conjunction with pretrial release was examined. Special conditions—including drug testing, reporting to a supervision

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[25] A class A felony is an offence punishableby 25-50 years imprisonment or life imprisonment. A class B felony is punishable by 10-20 years imprisonment. A class C felony is an offence punishable by 5-10 years imprisonment.

agency, abiding by a curfew, home incarceration, attending mental health treatment, and attending substance abuse treatment—were not found to improve pretrial outcomes. It was found that most of these restrictions were placed on low-risk persons, with pretrial failure rates being much higher for this group than for comparable low-risk persons without imposed conditions.

Two additional questions were subquently added to the instrument ("Has the defendant violated the conditions of release in the past 12 months? – if so, was bail revoked?") to see if predictive validity was improved. It was found that these items, as well as a third item ("Did a reference verify that he or she would be willing to attend court with the defendant or sign a surety bond?") did not increase the predictive validity of the instrument overall.

In testing various other types of questions, it was found that substance abuse-related questions and mental health-related questions did not improve the model's predictive power. However, two mental health history questions ("Has the defendant received special education services in school for emotional/behavioural problems?" and "Has the defendant spoken to a counsellor or psychologist about a personal problem?") as well as two domestic violence-related questions ("Does the defendant have any prior domestic violence restraining order?" and "Was a weapon used?") were statistically significant in adding to the instrument's predictive validity. However, due to a small sample of persons with histories of domestic violence perpetration (1.2% of overall sample), the domestic violence items were omitted. It was also recommended that the cut-off scores be adjusted to improve predictive power (low: 0 to 5, moderate: 6 to 13, high: 14+).

Florida Pretrial Risk Assessment Instrument (Austin et al., 2012)

The Florida Risk Assessment Instrument was designed as a statewide PTRA. Utilizing six counties that service a mix of urban and suburban centres, 47,936 interviews were conducted on pretrial defendants to collect information about variables of interest. A systematic random sampling scheme was then utilized to draw approximately 250 cases from each of the six counties. The outcome variable was pretrial misconduct, defined as FTA, commission of a new crime, or both. Multivariate logistic regression identified 11 factors that independently predicted pretrial misconduct:
- Age at admission
- Current most serious charge
- Whether the current charge is a 907.041[26]
- Employment status at admission
- Marital status

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[26] Florida statute 907.041 refers to the commission, attempt, or conspiring to commit a dangerous crime, including: arson; aggravated assault; aggravated battery; illegal use of explosives; child abuse or aggravated child abuse; abuse of an elderly person or disabled adult, or aggravated abuse of an elderly person or disabled adult; aircraft piracy; kidnapping; homicide; manslaughter; sexual battery; robbery; carjacking; lewd, lascivious, or indecent assault or act upon or in presence of a child under the age of 16 years; sexual activity with a child, who is 12 years of age or older but less than 18 years of age, by or at solicitation of person in familial or custodial authority; burglary of a dwelling; stalking and aggravated stalking, an act of domestic violence; home invasion robbery; an act of terrorism; and manufacturing of drugs and other illicit substances. Note that the court may also choose to order mandatory detention for defendants charged under statute 907.041.

- Having a telephone/cell phone
- Time at current residence
- History of substance abuse and/or mental health concerns
- Previous FTAs
- Previous adult felonies
- Previous adult misdemeanors

Weights were then assigned to the factors. It was determined that, overall, pretrial misconduct was 13%. The final instrument has a score range from 0 to 51, with four categories: low risk (a score range of 0 – 12), low/medium risk (13 – 17), medium risk (18 – 22), and high risk (23 – 51).[27] Furthermore, failure rates by category suggest that the instrument is accurately classifying offenders based on their risk of pretrial misconduct (<5% for low-risk group, compared to >25% for high-risk group). While further research utilizing more counties with greater geographical variability (i.e., including rural areas) is necessary to ultimately establish the validity and generalizability of the tool to all of Florida, early results among urban and suburban centres are promising.

Ohio Risk Assessment System (ORAS; Latessa, Smith, Lemke, Makarios, & Lowenkamp, 2009; Latessa, Lemke, Makarios, & Smith, 2010; Lowenkamp, Lemke, & Latessa, 2008)

The ORAS was developed as a comprehensive risk assessment system with four risk assessment tools: the Pretrial Assessment Tool (PAT), the Community Supervision Tool (CST), the Prison Intake Tool (PIT), and the Reentry Tool (RT). A sample of 452 cases from geographically diverse locations within the state was used in the pretrial sample, and was followed for one year after initial entry into system. Risk factors were derived from structured interviews, self-report surveys and file reviews of 1,834 offenders and defendants across 29 geographical locations in Ohio State. Risk factors were derived from these sources, and were subsequently tested and formulated into scales.

Because part of the goal was to create a risk assessment system which would inform case management, risk factors are broken down into domains (e.g., criminal associates, criminal attitudes, substance abuse).

The domains that constitute the ORAS-PAT are related to criminal history (3 items), employment (1 item), residential stability (1 item), and substance abuse (2 items), for a total of seven risk factors. Specifically, these risk factors are:
- Age at first arrest
- Number of FTA warrants issued in the past 24 months
- Three or more prior jail incarcerations
- Employment status at time of arrest
- Residential stability
- Illegal drug use within the past six months
- The presence of a severe drug use problem

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[27] Note that these cutoffs were presented by the researchers as useful, but may have been changed once this instrument was implemented by supervision agencies.

The ORAS-PAT has a range of 0 to 9, with defendants split into the following risk categories: low (score of 0 to 2), moderate (3 to 5), and high (score of 6 to 9). Results indicated that 16% of the pretrial sample had some type of pretrial failure, using an average follow-up period of one year. Risk levels were associated with increasing levels of recidivism, with a 5.4% rate of pretrial failure for low-risk defendants, to a high of 29.5% for high-risk defendants. Further, a defendant's score on the ORAS-PAT was related to pretrial failure ($r=.23$, $p<.00$); however, authors caution that a revalidation using a larger and more representative sample is required. Of the case management domains, criminal history and residential stability were the most significant indicators of a relationship between risk level and pretrial failure. That is, when examining risk score and pretrial failure, correlations were highest ($r=.19$) for criminal history and residential stability, while much lower for employment ($r=.09$) and substance abuse ($r=.05$).

Responsivity factors were also included in to the tool in order to aid overall case management. It should be noted that these factors are not included in the overall risk calculation, but are noted to assist in treatment planning. Specific responsivity issues considered are:
- Low intelligence
- Reading/writing limitations
- Transportation issues
- History of abuse/neglect
- Language considerations
- Presence of a physical handicap
- Mental health issues
- Treatment motivation
- Child care considerations
- Ethnicity and cultural barriers

Indiana Risk Assessment Instrument (IRAS; University of Cincinnati, 2010)

Similar to the ORAS, the Indiana Risk Assessment System (IRAS) consists of five separate instruments to be used at different stages of the criminal justice process. The five instruments include a pretrial assessment tool (PAT), a community supervision screening tool, a community supervision tool, a prison intake tool, and a re-entry tool. The factors on the IRAS-PAT are identical to those on the ORAS:
- Age at first arrest
- Number of FTA warrants issued in the past 24 months
- Three or more prior jail incarcerations
- Employment status at time of arrest
- Residential stability
- Illegal drug use within the past six months
- The presence of a severe drug use problem

The IRAS-PAT has a range of 0 to 9, with defendants split into the following risk categories: low (score of 0 to 2), moderate (3 to 5), and high (score of 6 to 9). Unfortunately, no publicly-available validation of this risk assessment system could be found, therefore no results

can be reported as to its utility, validity, and reliability. This instrument is listed here mainly to point out the trend of incorporating PTRAs into a holistic case management system.

Colorado Pretrial Assessment Tool (CPAT; Pretrial Justice Institute, 2012a)

The CPAT was developed by examining 2,000 cases over a 16-month period. The methodology utilized in constructing this instrument was strong (e.g., collecting every day of the week, collecting based on a pre-set pattern, collecting at all times of day). Results indicate that the following variables were significant in the overall model for predicting any type of pretrial failure:[28]

- Having a home or cell phone
- Owning or renting one's residence
- Contributing to residential payments
- Past or current problems with alcohol
- Past or current mental health treatment
- Age at first arrest
- Past jail sentence
- Past prison sentence
- Having active warrants
- Having other pending cases
- Currently on supervision
- A history of revoked bond or supervision

Defendants received a score ranging from 0 to 82, as each factor is weighed with multiple points. A higher score indicated a higher risk for pretrial failure. Four categories were developed, with different point ranges: category one (0 to 17 points), category two (18 to 37 points), category three (38 to 50 points) and category four (51 to 82 points). Findings indicated that failure rates ranged between 13% for low-risk (Category1) defendants, up to 67% for high-risk (Category 4) defendants, with an overall failure rate of 32%. Note that pretrial failure was conceptualized as any new criminal filing, regardless of offence severity, as well as FTAs. Initial results indicate that the CPAT is a valid and reliable instrument that correctly classifies defendants into appropriate risk categories; however, it requires retesting with a larger sample. For example, certain categories, such as Category 4, had low cell sizes, which may reduce the reliability of the instrument.

Connecticut Pretrial Risk Assessment Instrument (Hedlund et al., 2005, 2007)

In a validation of an earlier study, Hedlund et al. (2005) re-examined a PTRA that was developed for a PSA in Connecticut. Several criteria for the PTRA were drawn from statutes, with factors being chosen to tap the statute construct (see Table 6).

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[28] Please note that this study used a p-value cut-off of p .30, rather than the standard p<.05. The authors stated that a more lenient p-value was required due to small sample size (Pretrial Justice Institute, 2012a). However, this study failed to provide estimates of effect size, making it difficult to determine the presence of Type II errors.

Table 6. Statute Criteria and Factors Derived (Hedlund et al., 2005)

Statute Criteria	Factor
Nature of the offence	Charge severity
Prior convictions	Prior criminal record, number of prior convictions
Prior FTAs	Prior FTAs
Family/community ties	Marital status, living companion
Financial resources	Means of self-support, job time
Character	Verifiable reference
Mental condition	Mental/substance abuse problems

The final scale consisted of the following factors:

- Charge severity
- Prior criminal record
- Prior FTA
- Number of prior convictions
- Marital status
- Living companion
- Financial self-support
- Employment length
- Educational achievement
- Having a verifiable character reference
- Mental health or substance abuse problem

All items were weighted in such a fashion that a score of 1 or greater suggested that a defendant should be recommended for non-financial pretrial release, while a score of 0 or less suggested that a defendant should be released on more restrictive conditions, including financial bond or a surety. The revised point scale was found to have decreased FTA rates (from 21% to 10%) as well as to have increased the amount of defendants receiving a non-financial release recommendation (from 52% to 66%).

One element that sets this tool apart is that the researchers also incorporated a decision matrix into the risk assessment in order to make a recommendation for the types of conditions that should be placed on defendants released on a non-financial release. Through interviews with PSA staff and assessment of decision-making patterns, an instrument was developed to help assign conditions to defendants. The decision-making tool examines three areas:

- *Personal needs*: Needs that may have contributed to the client's current legal problems, but if addressed may help to maintain them in the community (i.e., employment, mental health treatment or counselling)
- *Compliance needs*: Factors that limit the client's ability to appear in court related to current levels of social support and residential structure
- *Safety risk*: Factors relating to the defendant's current charge severity and criminal history in order to determine the likelihood of endangering public safety if the defendant is released. This area is only examined for violent offenders, with conditions being tied to protecting the public (e.g., contact restrictions with victim, use of electronic monitoring)

The decision-making tool guides the interviewer through the process, and requires follow-up questions if certain risk factors are present. Each tool also contains a list of local community services that could be recommended to help stabilize the defendant (e.g., substance abuse, counselling, halfway houses) while on pretrial release. A pretest-posttest design was implemented in two court systems in order to test the effect of the decision-making tool. Cases examined included anyone released on a promise to appear, a promise to appear with other imposed conditions, and those released on a bond with conditions (excluding defendants released on a financial bond). Results indicated that more defendants were released on financial conditions in one court, but not in the other. Due to the small sample (i.e., two courts), a geographical confound may be present however. It was also found that after the introduction of the decision-making tool, PSA staff recommended conditions as often as judges imposed conditions during the pretest, suggesting that recommendation practices came in line with sentencing practices. As well, the number of conditions imposed remained on par with the amount of conditions pretest. A slight decrease in successful pretrial completion was noted between pretest (no decision-making tool) and posttest (assessed with decision-making tool) groups; however, when examining PTRA scores, the posttest group had higher risk scores, indicative of being higher-risk clients. Therefore, the failure rate may be a function of the samples used to test the success rate.

In an expanded follow-up on the decision-making tool (Hedlund et al., 2007), a sample of 907 cases between four courts was examined, using matched case sampling and a pretest-posttest design. It was found that non-financial release recommendations doubled (from 20% to 56%) after the introduction of the decision-making tool, suggesting a decreased reliance on financial release conditions. Further, the amount of conditions per client increased after the decision-making tool implementation. The amount of defendants detained pretrial also decreased, from 43% during the pretest to 25% after implementing the decision-making tool. Arrest rates for FTA decreased from 17% to 12%, and conviction rates for FTA decreased from 9% to 3%. For defendants who were detained pretrial and subsequently found guilty, sentence lengths were more than six times longer than defendants who were released pretrial and subsequently found guilty[29]. This finding provides evidence that pretrial release may result in significantly more favourable sentencing outcomes.

In essence, this decision-making tool serves as a risk-needs assessment for pretrial defendants. While this report does not speak to the legal implications of recommending defendants to treatment before a guilty verdict—or even of the net-widening effect that conducting such a risk-needs assessment may have[30]—this does serve as an interesting application of risk reduction to PTRAs.

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[29] These findings do not control for charge severity or other factors that would increase the length of a sentence.
[30] For instance, if substance abuse is determined to be a problem through a pretrial risk-needs assessment, even though it may not be linked to the defendant's current charges and may not have caused significant impairment in the defendant's personal life, this new-found fact could be used by the prosecution or judiciary as an aggravating factor for consideration in detention and sentencing decisions. The term "net-widening" refers to "the process of administrative or practical changes that result in a greater number of individuals being controlled by the criminal justice system" (Leone, 2002). For this reason, great caution must be exercised in how risk-needs information is used in a pretrial context, if for no other reason than to protect the defendant's *Charter* right to be treated as innocent until found guilty.

National-Level Pretrial Risk Assessment Tools

U.S. Federal Pretrial Services Risk Assessment Instrument (Lowenkamp & Wetzel, 2009; Cadigan & Lowenkamp, 2011; Cadigan et al., 2012)

Due to the continually increasing use of pretrial detention, noted in the first section of this report, a study was conducted to determine risk factors for FTA, commission of a new crime, and committing a technical violation, on a sample of over 185,000 federally-charged defendants released on bail (Lowenkamp & Wetzel, 2009). Outcomes were measured as either an FTA or commission of a new crime, or an FTA, new crime, or technical violation. Multivariate logistic regression models identified several factors related to pretrial failure. While most of the factors were static, relating to either the defendant's criminal history or the nature of the alleged crime, four dynamic factors—substance abuse, home ownership (a proxy for community ties), educational attainment, and employment status—were found to be significant in predicting pretrial outcomes (Lowenkamp & Wetzel, 2009). The following risk factors were identified:

- Number of felony convictions
- Prior FTAs
- Pending cases
- Current offence type
- Offence class
- Age at pretrial interview
- Highest level of education attained
- Employment status
- Residence arrangements
- Current drug problems

These factors were then weighted, which led to the creation of a 10-item scale, with a possible range of scores from 0 to 14, with each point increase suggesting a higher level of risk. Five risk categories were created, based on a defendant's total score: Category I (score of 0 to 4), Category II (5 to 6), Category III (7 to 8), Category IV (9 to 10), and Category V (11 to 14). Results indicated the following failure rates (Table 7).

This tool was used to help inform the pre-sentence report that is presented to judicial officers. While PSA officers are required to base their recommendation for release or detention on the tool's results, officers can, after consulting with their supervisors, override the tool's risk level, in order to speak to an individual's unique risk factors (Cadigan & Lowenkamp, 2011). The override feature is put in place to address the fact that, while risk assessments have high accuracy in the aggregate, they are less accurate at the individual level (Cadigan et al., 2012).

Results indicated that violent defendants fared better than most other defendants when examining FTA, re-arrest, or reconviction rates (Cadigan & Lowenkamp, 2011). This finding, consistent with other research (see VanNostrand & Keebler, 2009), has important policy implications. Specifically, that offence severity may not be a valid reason for denying pretrial release. Further, initial results indicated that, in the pilot regions where the Federal PTRA was implemented, release recommendations increased up to 13%, while actual releases increased

between 2% and 6% (Cadigan & Lowenkamp, 2011). This finding suggests that this PTRA may actually be leading to increased pretrial release.

Table 7. Pretrial Failure Rates on U.S. Federal Pretrial Services Risk Instrument

Risk Category	Failure Rates: FTA or New Crime	Failure Rates: FTA, New Crime, or Technical Violation
Category I	2%	3%
Category II	6%	10%
Category III	10%	19%
Category IV	15%	29%
Category V	20%	35%

In a re-validation of the U.S. PTRA (Cadigan et al., 2012), additional test questions were evaluated in order to see if they improved the predictive accuracy of the original PTRA, but the the re-validation found no evidence that these additional items improved the predictive accuracy of the original PTRA (Cadigan et al., 2012). Further, results on failure rates were similar to the 2008 study, supporting the validity of the original measure. It was noted, however, that the failure rate for FTA or new crime was twice as high in the 2008 sample for Category V, when compared to the 2011 sample (see Table 8). This may be due to increased services offered to higher-risk defendants, or may be due to a lack of real differences between Category IV and Category V (Cadigan et al., 2012). Either way, additional research is required in order to make sense of this finding. It should also be noted that the re-validation was conducted on a small sample (*n*=5,077), and may therefore lack generalizability to the overall pretrial population.

Bail Reform Act factors in a national instrument (VanNostrand & Keebler, 2009)

The American *Bail Reform Act* (1984) states that the following factors must be examined in order to determine a defendant's risk of pretrial failure: (1) The nature and circumstances of the offense charged; (2) The weight of the evidence; (3) The financial resources of the defendant; (4) The character and physical and mental condition of the defendant; (5) Family ties; (6) Employment status; (7) Community ties and length of residency in the community; (8) Record of appearances at court proceedings; (9) Prior convictions; (10) Whether, at the time of the current offense, the defendant was under criminal justice supervision; and, (11) The nature and seriousness of the danger to the community or any person that the defendant's release would pose (VanNostrand & Keebler, 2009).

In keeping with these identified risk factors, a PTRA was developed to test the validity of these nine risk factors for pretrial failure:
- Pending charges at time of arrest
- Number of prior misdemeanor arrests
- Number of prior felony arrests
- Number of prior FTAs
- Defendant's employment status at time of arrest
- Defendant's residency status at time of arrest
- History of substance abuse
- Nature of the primary charge
- Whether the primary charge was a misdemeanor or a felony

Table 8. Comparison of failure rates between 2008 and 2011

Risk Category	Failure Rates: FTA or New Crime		Failure Rates: FTA, New Crime, or Technical Violation	
	2008	2011	2008	2011
Category I	2%	1.3%	3%	3.4%
Category II	6%	3.4%	10%	8.5%
Category III	10%	6.7%	19%	20.5%
Category IV	15%	12.5%	29%	29.5%
Category V	20%	11.6%	35%	31.5%

Analyses were conducted on 565,178 defendant files across the United States[31] to determine the validity of the risk classification scheme, as well as to examine the impact of conditions attached on pretrial release outcomes based on the characteristics identified (see Table 9). Overall, increased levels of most of the examined conditions were associated with greater failure rates among low-risk defendants, with the exception of mental health treatment. It is important to note that technical violators were excluded from the analyses, and that the outcome variable, pretrial failure was operationalized as either a FTA or as bail revocation due to a new arrest.

Table 9. Effect of release conditions on risk of pretrial failure by risk level.

	Level 5	Level 4	Level 3	Level 2	Level 1
Third-party custodian	- 20%	*ns*	*ns*	+ 30%	+ 56%
Substance abuse testing	*ns*	*ns*	+ 16%	+ 27%	+ 41%
Sub. abuse treatment	*ns*	*ns*	+ 12%	+ 11%	+ 33%
Location monitoring	*ns*	*ns*	*ns*	+ 46%	+ 112%
Housing and shelter	*ns*	*ns*	-	-	-
Mental health treatment	+ 18%	*ns*	- 16%	- 22%	*ns*

Note: All results significant at *p*<.05, except those which were non-significant (*ns*) or which could not be calculated due to a lack of data (-). A plus sign (+) indicates increased risk while a minus sign (-) indicates decreased risk.

Five risk categories were created, ranging from level 1 (lowest risk for pretrial failure) to level 5 (highest risk for pretrial failure). It was found that the classification scheme accurately classified defendants into risk categories, as can be seen by the high completion rate for level 1

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[31] Excluding the District of Columbia. Note that this sample includes illegal aliens, whereas in other studies, this group has been excluded (see Lowenkamp & Wetzel, 2009; Cadigan et al., 2012), as immigration cases are not usually privy to pretrial release.

defendants (97.7%) compared to the progressively lower completion rates for level 2 (94.0%), level 3 (90.8%), level 4 (88.2%) and level 5 (84.5%). It should also be noted that the likelihood of community danger increased with each risk level, as did the likelihood of FTA.

As part of this investigation, the average risk levels of defendants were also examined. Over the seven years that span this investigation (2001 to 2007), it is interesting to note that the average risk level of defendants, using the current classification scheme, has increased from 2.85 to 3.10. When examining the percent change in risk levels, it is interesting to note that, while risk levels 1 to 3 had a negative percent change (indicating a lower percentage of defendants in these categories), levels 4 and 5 showed a positive percent change (indicating an increasing amount of defendants in these categories). Furthermore, there are a greater percentage of people being classified as a higher risk level than seven years prior. This provides some support for the argument that the risk profiles of federal defendants are increasingly reflecting higher-needs clients.

Furthermore, it is interesting to note that, as pretrial detention has increased, so has the risk levels of defendants. It seems that 60% of the increase in the use of detention can be attributed to defendants at risk levels 4 and 5, suggesting that, perhaps pretrial detention is serving its purpose in keeping the most at-risk defendants out of the community. This may suggest that pretrial detention is not as unwarranted as it may appear at face value, especially if community safety must be taken into consideration when making pretrial decision.

The effect of court-mandated conditions, on top of pretrial release, was examined in order to determine how conditions influence pretrial failure. Overall, 72.3% of the entire sample was released with one or more conditions, as described through the Alternatives to Detention (ATD) Program. This program provides nine options to ensure pretrial success: assigning a third-party custodian, mandatory substance abuse testing, substance abuse treatment, mental health treatment, sex offender treatment, residency at a halfway house, residency at a community shelter, location (electronic) monitoring, and computer monitoring. The six most common conditions and their frequency of application are listed below:
- Assigning a third-party custodian (10.4% overall)
- Substance abuse treatment (35.1%) and testing (60.1%)
- Location monitoring (17.6%)
- Housing and shelter (4.1%)
- Mental health treatment (9.3%)

These findings reflect the need to adhere to the risk-need-responsivity (RNR) framework for effective treatment; that is, to target treatment resources to identified risks (Andrews et al., 1990a; Andrews et al., 1990b; Andrews & Bonta, 2010). It is well-known that over-treating low-risk offenders may actually increase the risk of recidivism (Bonta & Andrews, 2007). It appears that this principle holds true for pretrial practices as well, when measuring the outcome as pretrial failure. Therefore, coordination between the judiciary and the presentence report writers is necessary, in order to administer effective sanctions. Furthermore, it is important to recognize that the imposition of conditions did not increase successful outcomes for low-risk offenders. In this instance, the candidates most suitable for the ATD program, when measuring overall success rates, are those in in levels 3 and 4 (VanNostrand & Keebler, 2009). Defendants in levels 1 and 2

tend to fare better, especially when conditions are not imposed, and therefore should be released pretrial without additional conditions.

The Public Safety Assessment-Court (PSA-Court) Tool (Laura and John Arnold Foundation, 2013)

This tool seeks to find overarching risk factors that will lead to the creation of a national risk tool for pretrial release in the USA. The factors most predictive of FTA, new criminal activity, and new violent criminal activity, were found to be related to a defendant's current case, and were also found to be related to a defendant's criminal history. Early results suggest that the tool is generalizable, and that it does not over-classify Caucasians in terms of risk level, which is cited as a concern with other risk instruments. However, no specific information on the factors of this instrument was publicly available. This instrument would be worthwhile to investigate further when it is publicly released.

<div align="center">

Juvenile Pretrial Risk Assessment Tools

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Juvenile Detention Alternatives Initiative (JDAI) Pretrial Risk Assessments (Steinhart, 2006)

In 1993, the Juvenile Detention Alternatives Initiative (JDAI) was founded as a means to reduce unnecessary incarceration for youth. While adults have a constitutional right to bail in the United States, juveniles do not. Therefore, pretrial detention for juveniles is legal, even though it may not be appropriate. In order to combat this, risk assessment instruments were developed in order to screen out youth who require pretrial detention from those who are low risk and able to return to their homes to await trial. Similar to adult instruments, juvenile PTRAs measure a youth's risk to public safety—usually measured through re-arrest rates—and risk of FTA. Most juvenile PTRAs incorporate aggravating and mitigating factors into their design, with additional points given (or subtracted) for the presence/absence of these factors.

Methodologically, there are some issues with the JDAI PTRAs. First, these PTRAs are developed using a consensus method of arriving at the risk factors, rather than using factors empirically identified as risk factors. While the consensus method has face validity, the scales developed may lack predictive as well as concurrent validity. Secondly, most JDAI PTRAs are developed with an override function by which a youth can be referred for pretrial detention, or in some cases, for pretrial release. While overrides in the direction of release would allow for implementing the least restrictive measure, overrides generally tend to increase the level of punitiveness experienced by the defendant. For example, it has been found elsewhere that parole officers would use overrides to send parolees back to prison for technical violations (Turner et al., 2012), suggesting that overrides increase, rather than decrease, the level of punitiveness experienced by parolees. For these reasons, JDAI-sponsored instruments are not listed here. However, information regarding JDAI instruments is included here as a reference for the various types of PTRAs available.

Minnesota Fourth Judicial District Juvenile Courtroom Risk Assessment Instrument (Loynachan, 2013)

Developed under the same research unit that created the Minnesota Fourth Judicial District Pretrial Evaluation Scale (Podkopacz et al., 2006), this instrument was normed for a youth-specific audience. What makes this instrument unique is that it works in tandem with a juvenile detention centre risk assessment instrument. The detention centre instrument is designed to ensure that only youth who are deemed as high risk are detained in custody, with the remainder of youth being released directly out of custody into the care of their family or to a shelter. The role of the juvenile courtroom PTRA is to provide a second opportunity to consider whether release should be considered for the juvenile defendant. At the detention hearing, a judge may choose to release a youth to their family or to a shelter, to order in-home electronic monitoring or another type of intensive supervision, or to order a youth to detention. The criteria for the juvenile courtroom PTRA are:

- Current offence
- Whether this index criminal adjudication is occurring before age 16
- Criminal history
- Prior FTA
- Prior pending cases

A score of 15 or higher resulted in a recommendation to detain the youth, while a score of 11 to 14 resulted in an electronic monitoring or a detention alternative, and a score of 3 to 10 resulting in a recommendation for pretrial release. Of the sample of 747 juvenile defendants, 33.1% received a score of 15+, 17.1% received a score of 11 to 14, and 49.8% received a score of 3 to 10. As well, 22% of the sample was detained at their first hearing but released at a subsequent hearing, remaining in detention for an average of 19 days prior to release.

It should be noted that, while there is no evidence that severity of the current offence is predictive of pretrial failure (Gottfredson & Moriarty, 2006; Lowenkamp & Wetzel, 2009), if the current offence is a serious felony (i.e., first-degree murder, first-degree arson), detention is automatically recommended. Furthermore, these youth are not brought before a judge for a detention hearing, as they are automatically detained based on the severity of their charges.

A validation of this instrument demonstrated that it was somewhat predictive of pretrial failure. Binary logistic regression revealed that current charge and prior pending petitions contribute to FTA; specifically, the more serious the charge, the less likely the youth is to FTA. Prior adjudications (criminal history) contribute to re-arrest rate; the more prior adjudications, the more likely the juvenile is to reoffend while on pretrial release. However, the overall scale is fairly weak in that it could only explain 7% of the variance for re-arrest rates and 13% for FTA rates. However, receiver operating characteristic (ROC) curves suggest that the courtroom PTRA predicted failure rates significantly better at chance (.642, p<?). As well, FTA rates (.740, p<?) and re-arrest rates (.661, p<?) were also predicted at above-chance levels.

One possible limitation of this study is related to sampling. It was found that 86% of cases examined involved ethnic minorities, which could introduce bias into the instrument. However, when testing for the effects of race and gender, it was found that neither was predictive

of pretrial failure, even though minority status did improve the predictive validity of the instrument.

Excluded Instruments

Two instruments were excluded from this literature review for not meeting the inclusion criteria. Specifically, one instrument was excluded due to lack of empirical validation either in the creation or evaluation of the instrument. Another report was excluded due to errors with the database used. However, they are listed here for reference.

Coconino County Pretrial Risk Assessment Tool (Levin, 2010). This instrument was not included because the instrument's factors were not developed through statistical modelling. That is, the factors used were merely imported from other jurisdictions, and were not evaluated for their validity in determining pretrial failure rates in the jurisdiction they were used.

County and Individual-Level Factors For Pretrial Failure (Levin, 2007). Using a large dataset, the Bureau of Justice Statistics' State Court Processing Statistics (SCPS) program, pretrial outcomes were examined on 1,500 cases from 40 of America's 75 largest counties. Results indicate that there are both county-level and individual-level factors that influence pretrial failure. However, it is important to note that the data used for this paper is suspect. In 2010, the Bureau of Justice Statistics issued a data advisory stating that the data from the SCPS program could not speak to causality or used for evaluating factors related to pretrial release (Mamalian, 2011). Therefore, the findings from this study were excluded from this review.

As is apparent from the preceding section, the existing pretrial risk assessment instruments incorporate a wide range of factors, and these factors vary in their ability to predict pretrial failure.[32] The following section highlights the nineteen predictive factors that were identified in the reviews of these instruments,[33] sorted based on four groupings: individual-level factors, economic factors, social factors, and criminal factors (see Table 10). These factors and their supporting research are discussed below and have also been summarized in Appendix B (see p. 74 of this report).

All of these factors received some degree of empirical support in the literature. They are also consistent with the established literature on risk factors for recidivism (Andrews & Bonta, 2010). The factors which received the most support are the defendant's age, history of substance abuse, employment status/history, criminal history, past supervision failures, and current criminal involvement. However, few meta-analytic studies have been conducted on these factors[34], no instruments been validated on Canadian populations, and it is not yet apparent what configuration of these factors would present the best predictive model for pretrial release failure. However, these factors represent a starting point for the development of such a tool.

Finally, it should be noted that many factors which are commonly included in PTRAs have not been found to have any empirical support, including weapon use, alcohol use, and injury level to the victim (Bechtel et al., 2011). As noted in section 3 of this report, it is not uncommon for such factors to be included on the basis of statutory or consensus guidelines, but these do not enhance the predictive validity or utility of the tools. However, in a number of cases there is substantial overlap between statutory guidelines and the empirically-supported factors, as reviewed later in this section, at least in the United States. This is important because it is critical that tools employed by the courts are both legally and empirically-sound (Lowenkamp & Wetzel, 2009; NAPSA, 2004) and this indicates that such a convergence is reasonable and possible.

Table 10. Empirically-supported predictive factors for pretrial failure.

Individual Factors	Economic Factors	Social Factors	Criminal Factors
• Age • Ethnicity • Gender • Mental health status/history • Substance abuse • Concurrent substance abuse and mental disorder	• Employment status/history • Education level • Financial resources • Home ownership • Transportation • Has a phone	• Residential stability • Residence arrangements • Marital status • Availability of guarantors	• Criminal history (prior arrests, convictions, incarceration) • Past release failures (FTAs, absconding, revocations,) • Current criminal involvement

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[32] One caution in interpreting these results is that pretrial failure can be conceptualized as failure-to-appear, re-arrest, or another form of non-compliance and that predictors of these different indicators may not be interchangeable.

[33] Studies which reported results for the entire tool but not individual items were not included in this section.

[34] One meta-analytic study (Bechtel et al., 2011) has been conducted, but on a sample of only 6 studies due to the dearth of appropriate research.

<center>**Overview of Identified Risk Factors for Pretrial Failure**</center>

Individual factors

   The following six factors are all related to general demographic characteristics of defendants (excluding those classified under "economic factors"). Of these risk factors, age and substance abuse were the most strongly supported.

   Age. Age is inversely associated with risk of pretrial failure, with younger defendants, particularly those in their 20s, as the highest risk for failure (Austin et al., 2012; Clark & Levin, 2007; Fennessey & Huss, 2013; Lowenkamp & Wetzel, 2009). Risk decreases with age, although studies differed with respect to their cut-off ages, with one study reporting the lowest risk for age 30 and up (Austin et al., 2012) and another at age 47 and up (Lowenkamp & Wetzel, 2009), though this may have reflect differences in the samples.

- *Age at first arrest.* While the majority of research pertained to age at time of assessment, it was also found that age of first arrest was predictive of pretrial failure. Those whose first arrest occurred when they were younger were also at greater risk of failure regardless of their age at the time of assessment, though again cut-offs varied. Some studies reported that those under the age of 33 were at the greatest risk (Latessa et al., 2009, 2010; Lowenkamp et al., 2008) while another study reported more fine-grained cut-offs, with the highest risk present for those first arrested under the age of 19 and lowest over the age of 35 (Pretrial Justice Institute, 2012a). The trend of younger ages predicting greater risk of pretrial failure is consistent throughout.

   Ethnicity. Some studies reported that the ethnicity of the defendants predicted their likelihood of pretrial failure. Fennessy and Huss (2013) found that being a member of an ethnic minority was associated with increased risk. More specifically, it was found that the probability of failures-to-appear were higher among African American (Cohen & Reaves, 2007; Prell, 2008; Siddiqui, 2006) and Hispanic defendants (Cohen & Reaves, 2007; Siddiqui, 2006). It should be noted, however, that ethnicity is confounded with a number of other predictive factors, including socioeconomic factors, and that a number of studies which examined ethnicity did not find it to be predictive in their overall models, so evidence for this particular factor is mixed. As well, these studies have been conducted exclusively in the United States and may not apply to the Canadian context in the same manner.

   Gender. It was reported by in two studies that men were at greater risk for pretrial failure than women (Fennessey & Huss, 2013 Siddiqui, 2006). The reasons for this are unclear though it is consistent with the over-representation of men in the criminal justice system overall. It was also not clear from the literature if gender is a factor predicting pretrial release.

   Mental health status/history. Both history of mental health concerns and current mental health concerns has been associated with increased risk of pretrial failure in two reports (Austin et al., 2012; Pretrial Justice Institute, 2012a). This stands in significant contrast to the findings around risk factors for probation/parole violation (see Camman, Myburgh, & Wormith, 2014) where presence of a mental disorder was found to be commonly associated with supervision

<center>50</center>

failure in that context. It is possible that the dearth of findings in this area represent a lack of research rather than a lack of predictive validity.

Substance abuse. In comparison to presence or history of mental disorder, substance abuse was strongly supported in the literature as predicting pretrial release failure. This association was supported for substance abuse both past (Austin et al., 2010; Clark & Levin, 2007; Pretrial Justice Institute, 2012a; VanNostrand, 2003) and current (Bechtel et al., 2011; Fennessey & Huss, 2013; Hedlund et al., 2005; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Pretrial Justice Institute, 2012a).

Concurrent substance abuse and mental disorder. As with the post-conviction supervision failure (Camman et al., 2014), the co-occurrence of mental disorder and substance abuse was found to be additionally predictive of pretrial failure above and beyond each individual risk factor (Austin et al., 2012; Hedlund et al., 2005).

Economic factors

Related to individual level factors, the following risk predictors were all related, directly or indirectly, to the economic status of the defendants. Employment status/history was the most strongly supported of these factors.

Employment status/history. Consistently in the literature, those defendants who are unemployed were at greatest risk for pretrial failure (Austin & Murray, 2009; Austin et al., 2012; Clark & Levin, 2007; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Podkopacz et al., 2006; Siddiqui, 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009). The longer the term of employment, the less risk (Hedlund et al., 2005) and full-time employment was more protective than part-time (Latessa et al., 2009, 2010; Lowenkamp et al., 2008). Not included among the unemployed were full-time students, at-home caregivers, and those who are retired or disabled, who were also at less risk (Austin & Murray, 2009; Podkopacz et al., 2006; Siddiqui, 2002, 2006; VanNostrand, 2003).

Education level. In the majority of studies, having less than a high school education or a GED was linked with increased risk of pretrial failure (Austin & Murray, 2009; Lowenkamp & Wetzel, 2009; Fennesey & Huss, 2013; Hedlund et al., 2005; Siddiqi, 2002, 2006) while having greater than high school diploma predicted a decreased risk (Hedlund et al., 2005; Lowenkamp & Wetzel, 2009). However, one small meta-analytic study predicted that higher education was somewhat positively associated with both failures-to-appear and committing a new crime, though this surprising finding was not elaborated on (Bechtel et al., 2011).

Financial resources. Defendants with a verified means of financially supporting themselves were at decreased risk for pretrial failure (Austin et al., 2010; Hedlund et al., 2005). While financial self-sufficiency was the most protective, the ability to rely on other for financial support was also more protective than no financial support at all (Hedlund et al., 2005).

Home ownership. Although likely confounded partly with residential stability, home ownership appeared to offer specific protective benefits (Clark & Levin, 2007). That is,

individuals who owned their own home were at less risk than those who rented or had unknown or no residential arrangements (Lowenkamp & Wetzel, 2009; Pretrial Justice Institute, 2012a; VanNostrand & Keebler, 2009).

Transportation. In one study, individuals who did not have access to a car were found to be at increased risk of pretrial failure (Austin & Murray, 2009).

Has a phone. In several studies, individuals who did not own or have access to a phone, either a cell phone or a landline, were more likely to fail their pretrial release (Austin et al., 2012; Pretrial Justice Institute, 2012a; Siddiqi, 2002, 2006).

Social factors

These are factors which pertain to where and with whom the defendants lived and any other significant social relationships. Of these predictors, residential stability was the best supported.

Residential stability. In addition to having a verified address, which was a protective factor on its own (Austin et al., 2010; Siddiqi, 2002, 2006), length of time also predicted decreased risk of pretrial failure. Specifically, it was found that having lived at the same address for more than twelve months was associated with reduced risk (Austin et al., 2010, 2012; VanNostrand, 2003). Some studies shortened this timeline to at least six months at the same address (Latessa et al., 2009, 2010; Lowenkamp et al., 2008).

Residence arrangements. Living alone was found to predict the greatest risk of pretrial failure, while living with roommates or non-immediate family members was somewhat protective and living with immediate family members was the most protective (Austin & Murray, 2009; Hedlund et al., 2005).

Marital status. Married defendants have been found to be less at risk for pretrial failure than their single counterparts (Austin et al., 2012; Hedlund et al., 2005).

Availability of guarantors. Finally, those who had someone willing and able to stand as a character reference for them, sign a surety bond, and attend court with them were less likely to fail their pretrial release (Austin et al., 2010; Hedlund et al., 2005; Siddiqi, 2002, 2006).

Criminal factors

This final set of factors are among the most significant, including criminal history, prior release failures (pre- and post-conviction) and current involvement in the justice system. All of these factors were strongly supported in the literature.

Criminal history. Various indicators of criminal history were found to be strongly predictive of pretrial failure risk across multiple studies. Specific indicators included:

- *Prior convictions/arrests/incarcerations.* All three of these indicators are strongly related to each other representing various stages of involvement in the criminal justice system, and unsurprisingly all three received support as predictors of increased pretrial failure. The most common of these indicators was prior convictions, which was found to predict pretrial failure both for misdemeanours (Austin & Murray, 2009; Austin et al., 2010, 2012; Bechtel et al., 2011; Clark & Levin, 2007; Siddiqi, 2006; VanNostrand, 2003) and felonies (Austin & Murray, 2009; Austin et al., 2010, 2012; Bechtel et al., 2011; Fennessey & Huss, 2013; Lowenkamp & Wetzel, 2009).

    The presence of prior arrests was also associated with increased risk (Bechtel et al., 2011; VanNostrand & Keebler, 2009), including both felony and misdemeanour arrests (VanNostrand & Keebler, 2009) and those which were made when the defendant was a juvenile (Bechtel et al., 2011).

    Finally, prior incarcerations, both in jail (Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Pretrial Justice Institute, 2012a) and in prison (Pretrial Justice Institute, 2012a) were also predictive.

- *Number of prior arrests/convictions.* In addition to the presence or absence of one of the prior indicators, the number of prior arrests or convictions was also found to be associated with increased risk of pretrial failure (Podkopacz et al., 2006; VanNostrand & Keebler, 2009). The reported cut-offs varied, with some studies reporting that differences were apparent with more than two incidents (Clark & Levin, 2007; Hedlund et al., 2005), while another reported the increased risk with at least five additional convictions (Lowenkamp & Wetzel, 2009).

- *Type of past conviction.* The type of prior conviction was also found in some studies to be associated with pretrial failure. One study found that prior felonies were more predictive than prior misdemeanours (Hedlund et al., 2005). Presence of a violent criminal record was also supported by several studies (Austin et al., 2010; Bechtel et al., 2011; Fennessey & Huss, 2013). Having a prior drug conviction (Fennessey & Huss, 2013) and the use of a weapon in an offense (echtel et al., 2011) were also associated with increased risk.

Past release failures. Defendants who have been found to fail on release in the past, whether pretrial or post-conviction, were found to be at increased risk of new failures. This is unsurprising given that past behaviour is generally a good predictor of future behaviour (Ouellette & Wood, 1998), and indeed these were among the most consistent and prevalent risk predictors in the literature. Specific indicators found included:

- *Prior failures-to-appear.* As discussed, failure to appear for court dates is one of the most common indicators used for release failure, and prior failures have been found in numerous studies to predict future failures (Austin & Murray, 2009; Austin et al., 2010, 2012; Bechtel et al., 2011; Clark & Levin, 2007; Cohen & Reaves, 2007; Fennessey & Huss, 2013; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Podkopacz et al., 2006; Siddiqi, 2002, 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009). This was found when the FTAs were for felonies even more so than for

misdemeanours (Hedlund et al., 2005), when there was a prior FTA for traffic violation (Austin et al., 2010), and when there were active warrants for an FTA prior to disposition (Austin et al., 2010).

- *Number of prior failures-to-appear.* As with prior arrests/convictions, the increasing number of prior FTAs was also additionally predictive of failure (Austin et al., 2012; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; VanNostrand & Keebler, 2009), with at least two FTAs associated with greater risk than one (VanNostrand, 2003), although some researchers put the cut-off at three FTAs (Clark & Levin, 2007) or five (Lowenkamp & Wetzel, 2009).

- *Prior escape from custody.* Defendants who had absconded or escaped from lawful custody were more likely to fail on pretrial release (Austin et al., 2010; Fennessey & Huss, 2013).

- *Prior revocation or supervision failure.* Finally, individuals with a history of revocation or failures under supervision of any type (e.g., pretrial release, probation, parole, community supervision orders) were also found to be at increased risk of failure (Bechtel et al., 2011; Pretrial Justice Institute, 2012a). This included failures-to-comply, re-arrests, and any other reason for unsuccessful completion of supervision.

Current criminal involvement. In addition to past criminal behaviours, individuals who were presently engaged in criminal behaviours or were being processed on multiple separate charges were also found to be more likely to fail their pretrial release (Cohen & Reaves, 2007). The nature of their current charge was also found to be predictive in some instances.

- *Current community supervision sentence.* It was found that being under community supervision of any type, including parole, probation, pretrial supervision, diversion, or a community sentence, was related to increased risk of pretrial failure (Pretrial Justice Institute, 2012a). A number of additional studies confirmed this finding for individuals on probation or parole (Austin & Murray, 2009; Austin et al., 2010; Clark & Levin, 2007). This is an interesting finding because it suggests that additional supervision and contact with the criminal justice system is not alone sufficient to increase compliance, although this is conflated with the fact that individuals being multiply supervised are likely more criminally-involved overall and that, if these supervision systems are not integrated, they may be under a greater burden to comply with the requirements of the courts and thus more prone to failure.

- *Pending trial/appeal/sentencing on another charge.* A number of studies reported that defendants who were charged with multiple separate charges or had other pending cases were at increased risk of pretrial failure (Austin et al., 2010; Bechtel et al., 2011; Lowenkamp & Wetzel, 2009; Pretrial Justice Institute, 2012a; Siddiqi, 2002, 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009). Having an outstanding arrest warrant was also a predictor in some instances (Clark & Levin, 2007; Pretrial Justice Institute, 2012a; VanNostrand, 2003).

- *Nature of current charge.* The findings related to the predictiveness of the current charge were mixed and therefore somewhat inconclusive. Some authors reported that property-related charges were the most predictive of pretrial release failure (Austin & Murray, 2009; Austin et al., 2012). Others indicated that drug-related, immigration-related or firearm charges were also significant (Lowenkamp & Wetzel, 2009; VanNostrand & Keebler, 2009). The largest consensus was that felony charges were more strongly related to failure than misdemeanour charges (Austin et al., 2010; Lowenkamp & Wetzel, 2009; Podkopacz et al., 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009).

While there is often great concern about the danger posed by violent offenders, violent offenses were found to either have no relation to pretrial release failure (Siddiqui, 2006) or a decreased risk of failure (Siddiqui, 2006; VanNostrand & Keebler, 2009). In Florida, there is a category of offenses referred to as "dangerous crimes", which includes a heterogenous array of charges including assault, homicide, sexual assault, manslaughter, arson, kidnapping, burglary, robbery, domestic violence, stalking, terrorism, and drug manufacturing. Although this is used as a predictor of pretrial failure, it is in fact associated with a decreased risk of failure (Austin et al., 2012), although it is difficult to interpret this result given the large number of different charges that it relates to.

Comparison with Legal Standards

While many PTRA factors are derived empirically, some factors are derived statutorily, which is to say they are derived from legislative guidelines (Lowenkamp & Wetzel, 2009; NAPSA, 2004). In considering whether to release or detain a defendant, the National Association of Pretrial Services Agencies (NAPSA; 2004) in the US has created a list of legal standards that should inform judges' decisions. Judges are instructed to take heed of the following considerations about the defendant and the circumstances of their index offence when considering releasing a defendant pretrial:
- Age
- Physical and mental condition
- Family ties
- Employment status and history
- Financial resources
- Length of residence in the community
- Community ties
- Past conduct
- History relating to drug or alcohol abuse
- Criminal history
- Record concerning appearance at court proceedings
- Whether the person was on probation, parole, or some other form of community supervision at the time of the offence, or whether the person had completed an offence
- Availability of guarantors or sureties to assist the defendant in attending court at the proper time
- Any facts justifying a concern that the defendant will violate the law if released without restrictions

- The nature and circumstances of the offense in relation to the risk of the defendant's non-appearance or risk to public safety
- Whether there are specific factors that may make the defendant an appropriate subject for conditional release and supervision options, including participation in available medical, drug, mental health or other treatment, diversion or alternative adjudication release options
- The nature and circumstances of the offense charged
- The nature and seriousness of the danger to any person or the community, if any, that would be posed by the defendant's release
- The weight of the evidence
- The likelihood that the defendant would leave the jurisdiction
- Any facts justifying a concern that a defendant will present a serious risk of flight or of obstructions, or of danger to the community or the safety of any person.

While these legal standards were not derived empirically, they were developed through years of observations related to pretrial outcomes, and, therefore it is not surprising that there is a reasonable degree of overlap between these standards and the empirically derived factors that are outlined above.

For example, the following standards have been shown to be empirically-supported:

- **Age** (Austin et al., 2012; Clark & Levin, 2007; Fennessey & Huss, 2013; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Pretrial Justice Institute, 2012a);
- **Defendant's mental condition**, if defined as current mental health status (Austin et al., 2012; Hedlund et al., 2005; Pretrial Justice Institute, 2012a);
- **Employment status and history** (Austin et al., 2012; Austin & Murray, 2009; Clark & Levin, 2007; Hedlund et al., 2005; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Podkopacz et al., 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009);
- **Financial resources**, measured through either *means of support* (Austin et al., 2010; Austin & Murray, 2009), *home ownership* (Clark & Levin, 2007; Lowenkamp & Wetzel, 2009; Pretrial Justice Institute, 2012a; VanNostrand & Keebler, 2009), and *owning a telephone/cellphone* (Austin et al., 2012; Pretrial Justice Institute, 2012a; Siddiqi, 2006);
- **Length of residence in the community** (Austin et al., 2010, 2012; VanNostrand, 2003, Latessa et al., 2009, 2010; Lowenkamp et al., 2008);
- **History of drug or alcohol abuse** (Austin et al., 2010, 2012; Bechtel et al., 2011; Clark & Levin, 2007; Fennessey & Huss, 2013; Hedlund et al., 2005; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Pretrial Justice Institute, 2012a; VanNostrand, 2003; VanNostrand & Keebler, 2009);
- **Criminal history**, measured through the *number of prior felony or misdemeanor arrests or convictions* (Austin et al., 2010, 2012; Austin & Murray, 2009; Bechtel et al., 2011; Fennessey & Huss, 2013; Lowenkamp & Wetzel, 2009; Siddiqi, 2006; VanNostrand & Keebler, 2009), *prior incarcerations* (Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Pretrial Justice Institute, 2012a),

- **Record concerning appearance at court proceedings** and **the likelihood that the defendant would leave the jurisdiction,** measured through *prior FTAs* (Austin et al., 2010, 2012; Austin & Murray, 2009; Bechtel et al., 2011; Clark & Levin, 2007; Cohen & Reaves, 2007; Fennessey & Huss, 2013; Hedlund et al., 2005; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Podkopacz et al., 2006; Siddiqi, 2002, 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009);
- **Community supervision status at time of offence** (Austin et al., 2010; Austin & Murray, 2009; Clark & Levin, 2007; Pretrial Justice Institute, 2012a)
- **Availability of guarantors or sureties to assist the defendant in attending court** (Austin et al., 2010; Hedlund et al., 2005; Siddiqi, 2002, 2006);
- **The nature and circumstances of the offense in relation to the risk of the defendant's non-appearance or risk to public safety**, and **the nature and circumstances of the offence charged**, (Bechtel et al., 2011; Fennessey & Huss, 2013; Hedlund et al., 2005; Podkopacz et al., 2006VanNostrand, 2003)
- **Whether there are specific factors that may make the defendant an appropriate subject for conditional release and supervision options, including participation in available medical, drug, mental health or other treatment, diversion or alternative adjudication release options**, as measured through a history of a *revocation of bond supervision* (Pretrial Justice Institute, 2012a) or *prior community supervision violations* (Bechtel et al., 2011)

Standards not found to have a strong relationship with empirically-validated risk factors include:

- **The defendant's physical condition:** While this may be a responsivity issue (Andrews & Bonta, 2010), it is unclear from the literature that this is a factor that has been found to increase the risk of flight;
- **Family ties:** While this factor seems to be important in terms of establishing a defendant's relationship to the community, only three studies (Austin & Murray, 2009; Austin et al., 2010; Hedlund et al., 2005) have found that marital status or living with family decreases a defendant's risk of pretrial failure. This suggests that, while this factor appears to have face validity, no strong empirical relationship has been established.
- **Community ties:** In keeping with findings from previous literature (see Lowenkamp & Wetzel, 2009), community ties does not seem to have strong empirical support as a predictor of pretrial failure. At the same time, the technical violation literature suggests that ties to the community—such as family, religion, community involvement—decreases recidivism (Piquero, 2003). It may be that community ties are an important factor to consider post-incarceration, but not pre-incarceration, or that there are geographical differences that either strengthen or weaken this factor. Because most PTRA studies in this review examined marital status, it is interesting to note that only three found a significant relationship to pretrial failure. It should also be noted that community ties can be conceptualized very differently. In some studies, home ownership is a proxy for community ties (Lowenkamp & Wetzel, 2009). Therefore, before community ties can be empirically validated, greater clarity is necessary in order to understand this variable.

It is important once again to note that the research on legal standards is specific to the US judicial context as no similar Canadian research on this topic was identified for this review.

The use of pretrial risk assessments (PTRAs) has expanded dramatically in the United States as the rate of pretrial detention has also increased. The increased use of PTRAs has been related to several factors, including a move towards more objective decision-making regarding pretrial outcomes, as well as a movement away from imposing financial bonds on pretrial defendants. It has also been found that pretrial release is related to significantly more positive outcomes for pretrial defendants. Furthermore, the use of PTRAs is linked to decreased jail usage, increased court efficiency, and increased levels of pretrial release, especially for low-risk defendants. PTRAs have been found that are normed for specific geographical areas—cities, counties or judicial districts, states, and nationally—as well as for special populations, such as young offenders. Overall risk factors, whether found empirically or statutorily, suggest that certain common factors, especially criminal history factors, are highly predictive of pretrial failure. Following this review of the pretrial risk assessment literature, a number of recommendations have been identified for future research in this area, for the administration of justice, and for the Saskatchewan Ministry of Justice in particular.

Recommendations

The first set of recommendations pertains to further research on PTRAs as well as guidelines for evaluating their usage.

Recommendations for PTRA research and evaluation

1.1 It is recommended that more PTRA validation studies be conducted and publicly disseminated to allow for comparison. Furthermore, it is recommended that PTRA studies include the necessary information to calculate effect size (Bechtel et al., 2011).

1.2 It is recommended that additional research be conducted on factors impacting pretrial release outcomes, as well as a wider range of outcomes (Laura and John Arnold Foundation, 2013; Kennedy, House, Williams, 2013). That is, more than just FTA and re-arrest should be considered, especially if the use of PTRAs is to help ensure protection of the public. At the same time, FTA and pretrial good behaviour should be standard outcomes in any PTRA (Mamalian, 2011). It is especially recommended that additional research be conducted on the utility of PTRAs by police with regard to discretionary release decisions prior to individuals being charged, as this may be another source of the increasing population (Deshman & Myers, 2014).

1.3 It is recommended that agencies which oversee the use of PTRAs are equipped to capture pretrial supervision outcomes properly (Clark & Henry, 2003), through calculating FTA and re-arrest rates. Furthermore, an accurate data management system is necessary in order to conduct evaluations of PSA programming, as well as to properly manage defendant information (Clark & Levin, 2007; NAPSA, 2004). It is furthermore recommended that data

collection included the following outcome, performance, and mission-critical[35] measures (National Institute of Corrections, 2011, pp.v-vi.):

➢ Outcome measures:
  o *Appearance rate*: The percentage of supervised defendants who make all scheduled court appearances.
  o *Safety rate*: The percentage of supervised defendants who are not charged with a new offense during the pretrial stage.
  o *Concurrence rate*: The ratio of defendants whose supervision level or detention status corresponds with their assessed risk of pretrial misconduct.
  o *Success rate*: The percentage of released defendants who (1) are not revoked for technical violations of the conditions of their release, (2) appear for all scheduled court appearances, and (3) are not charged with a new offense during pretrial supervision.
  o *Pretrial detainee length of stay*: The average length of stay in jail for pretrial detainees who are eligible by statute for pretrial release.
➢ Performance measures:
  o *Universal screening*: The percentage of defendants eligible for release by statute or local court rule that the program assesses for release eligibility.
  o *Recommendation rate*: The percentage of time the program follows its risk assessment criteria when recommending release or detention.
  o *Response to defendant conduct*: The frequency of policy-approved responses to compliance and noncompliance with court-ordered release conditions.
  o *Pretrial intervention rate*: The pretrial agency's effectiveness at resolving outstanding bench warrants, arrest warrants, and capiases.
➢ Evaluation measures:
  o *Number of defendants released by release type and condition*: The number of release types ordered during a specified time frame.
  o *Caseload ratio*: The number of supervised defendants divided by the number of case managers.
  o *Time from nonfinancial release order to start of pretrial supervision*: Time between a court's order of release and the pretrial agency's assumption of supervision.
  o *Time on pretrial supervision*: Time between the pretrial agency's assumption of supervision and the end of program supervision.
  o *Pretrial detention rate*: Proportion of pretrial defendants who are detained throughout pretrial case processing.

By capturing these various outcomes, the Ministry of Justice would be able to judge the effectiveness of service delivery, as well as various outcomes of importance.

Recommendations for the administration of justice related to PTRAs

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[35] *Mission-critical measures* refer to "supporting data in areas strategically linked to outcome and performance measures. These data track progress in areas and on issues that supplement specific measures" (National Institute of Corrections, 2011, p. 1).

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The second set of recommendations pertains to overall administration of justice concerns with regards to pretrial release and the use of pretrial risk assessment.

2.1 It is recommended that pretrial release be an option for all offenders who do not pose an undue risk for FTA or for endangering public safety, and that these defendants be released according to the least restrictive measure possible (NAPSA, 2004). Pretrial detention should only be used as a last resort. The use of monetary bail should be restricted, and if used, should only be set at an amount that the defendant can afford to pay.

2.2 It is recommended that every jurisdiction have a pretrial services agency or program (NAPSA, 2004). Furthermore, this agency or program should provide information to the courts to assist in release and detention decisions, as well as provide monitoring and supervision for released defendants. Further, it is recommended that this pretrial services agency or program have an adequate data management system that can accurately and efficiently capture data for evaluation purposes (Mamalian, 2011). Having accurate data will allow policymakers to make data-driven decisions (Pretrial Justice Institute, 2012b).

2.3 It is recommended that a pretrial investigation be conducted by the established pretrial services agency, in order to inform decisions regarding pretrial release or detention (NAPSA, 2004). The pretrial investigation should include a written report, submitted to the prosecution, defense counsel, and judge prior to the first hearing.

2.4 It is recommended that pretrial release conditions should only be imposed if there is an identified risk that can be targeted through proper interventions, with the sole purpose of increasing pretrial success, as it has been identified that conditions imposed on low-risk offenders increased likelihood of pretrial failure (Cadigan et al., 2012; VanNostrand & Keebler, 2009). It is also recommended that conditions should only be imposed if they are found to be the least restrictive measure (*CCC*, 1985), and necessary for the protection of the public and in the defendant's best interests.

Recommendations for the Saskatchewan Ministry of Justice

Finally, the third set of recommendations, as well as attendant considerations, pertains to the introduction of PTRA into Saskatchewan specifically.

3.1 In the desire to foster expedient justice as well as decrease unnecessary detention, it is recommended that an evidence-based, practical, and geographically applicable PTRA be developed for use within the jurisdiction (John Howard Society of Ontario, 2005).

3.2 It is recommended that, if a PTRA is developed, that it be re-evaluated every three to five years, or as needed (Clark & Henry, 2003; Cadigan et al., 2012; Mamalian, 2011). Re-validation is necessary, especially to ensure the quality of the instrument and the validity of the constructs. When re-validations are conducted, it is recommended to draw results from a large and representative sample size in order to increase generalizability. It is also recommended that the validation be completed by an objective research unit that is independent from the Ministry (Austin, 2004).

3.3 It is recommended that, should the Ministry of Justice implement a PTRA, dynamic factors should be considered for inclusion, especially dynamic factors relating to the "central eight" criminogenic needs (Andrews & Bonta, 2010).While static factors are utilized in most pretrial risk assessments, it is also well-known that dynamic factors can accurately predict recidivism (Gottfredson & Moriarty, 2006; Andrews & Bonta, 2010). While most PTRAs have found greater predictive validity for static factors, especially factors related to criminal history (Bechtel et al., 2011; Podkopacz et al., 2006; VanNostrand 2003; VanNostrand et al., 2011), there is evidence emerging that dynamic factors may also be very useful in predicting pretrial failure (Lowenkamp & Wetzel, 2009).

3.4 It is recommended that, should a PTRA be implemented for use in Saskatchewan, that all persons conducting PTRAs be trained in the use of the tool (Clark & Levin, 2007; Hedlund et al., 2005). Training leads to consistent and correct use of the tool (Latessa & Lovins, 2010). Further, training officers of the court in the use of the tool would be instrumental in garnering additional support for its use (Mamalian, 2011). As well, strong leadership from within the judiciary would bolster the use and acceptance of the tool (Clark & Levin, 2007).

3.5 It is recommended that, should a PTRA be developed, that it be integrated with existing case management tools used in other related justice departments (Lowenkamp et al., 2008; Latessa et al., 2009, 2010). That is, the PTRA should be complementary to the assessment tools used if the defendant moves further into the criminal justice system through conviction.

3.6 It is recommended that a pretrial release strategy be formulated by all affected parties: the judiciary, criminal justice policymakers, correctional/detention officials, lawyers (both prosecution and defence) and PSAs (Goldkamp & White, 2006; Steinhart, 2006), as well as police. Further, the role of the courts must be foundational in helping to keep the defendant accountable; that is, the courts must be able to take action upon non-compliant defendants (Levin, 2007). As research has shown that the recommendations of the prosecution are very influential in ROR decisions (Phillips, 2004), Crown prosecutors and judges should be educated in understanding the validity and utility of the PTRA, so that these parties can recognize the value of a PSA's recommendations regarding defendants. This relationship will also ensure public safety, through allowing empirical, objective assessments of risk to be the main influential cause of who to release and who to detain.

Additional considerations:

o   If the Ministry of Justice employs the use of a PTRA, it is important to decide whether to use a proprietary or non-proprietary instrument. The benefits of using a proprietary tool include regular upgrades of the instrument, technical assistance from the vendor, as well as using a tool that has been validated (Clark & Henry, 2003; Latessa & Lovins, 2010). While it might be more cost-effective to create one's own instrument, it is important to recognize that testing the validity of the instrument could take years (Latessa & Lovins, 2010). Furthermore, the up-front investment for developing a tool would be significant, especially if relying on contractors to complete the work (Latessa & Lovins, 2010).

Recommended Resources

The following resources are recommended for additional reading on the subject of best practices and standards for pretrial release and pretrial risk assessment.

National Association of Pretrial Service Agencies. (2004). *Standards on pretrial release (3rd ed).* Retrieved from website: http://www.napsa.org/publications/2004napsastandards.pdf

National Institute of Corrections. (2011). *Measuring what matters: Outcome and performance measures for the pretrial services field*. Washington, DC: Author.

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The literature review for this report was conducted concurrently with a separate review on administration of justice charges and sanctions (see Camman et al., 2014). Only after the majority of the search process was complete was it determined that the two topic areas would be separated and additional searching was conducted to identify additional articles related to pretrial risk assessment.

Sources

Thirteen databases and search engines were included in the search, selected based on their relevance to the topic:
- 4 academic databases (Criminal Justice Abstracts, Sociological Abstracts, PsycInfo, Campbell Collaboration)
- 7 organizational websites (Canada: Department of Justice Canada; Parole Board of Canada, Public Safety Canada, Canadian Legal Information Institute; US: National Institute of Justice, National Institute of Corrections; American Probation and Parole Association)
- 2 standard search engines (Google Scholar, Google)

The academic and organizational databases were searched first. The search engines were then included as a means of identifying any additional literature not found during the initial search process. The majority of relevant returns were found through PsycInfo and Criminal Justice Abstracts.

Search Criteria

A broad array of search terms were employed in the review, reflecting the diversity of language used to describe the topic. Many of these search terms were specific to the topic of administrative charges and not relevant to pretrial risk assessment.

The list of search keywords was:
- Administrative/judicial sanctions/charges
- Administration of justice charges/offenses
- Criminal justice administration
- Probation/parole revocation/suspension
- Violation/technical violation/breach/breach of conditions
- Fail to comply/attend
- Release conditions/conditions of release
- Conditional release/bail/judicial interim release/pretrial release
- Community/intensive supervision
- Graduated sanctions
- Remand
- Risk assessment/pre-trial risk assessment

These keywords were used individually and in combination to generate search returns. Multiple searches were conducted per database until the search terms and the appearance of new relevant returns were exhausted. Search results were scanned for relevancy according to the inclusion/exclusion criteria.

The criteria for inclusion were that the returned articles were:
- Published in 1985 or later
- Written in English
- Available in full text, either digital or hardcopy
- Published in a peer-reviewed journal if they were a theoretical paper or experimental/research paper
- Published by a named and authoritative source (e.g., government organization) if they were grey literature
- Not purely an editorial or opinion piece or from a secondary news media source (for articles which were reviews of other primary sources, the primary sources themselves were searched for and included)
- Contained substantive or significant commentary relevant to topic of administration of justice charges or pretrial risk assessment

For the academic databases and the organizational databases which supported keyword search functions, all returned results were scanned. For the organizational websites which did not support keyword searches, the Publications section of these websites was located and all available publications were scanned. For the search engines, the first 20 pages of results were scanned (10 returns per page, 200 returns per search).

A total of 7566 articles were scanned, producing 391 relevant returns based on the criteria outlined above. Of these, 226 of the articles found were redundant. Of the remaining 160 relevant and unique articles found, 146 were able to be retrieved in full text. Of these articles, 21 were specific to pre-trial risk assessment. This was deemed to be insufficient for a thorough review and an additional step was added to the process. For each of the 21 articles, a two-fold 'treeing' process was used. First, the reference list of each article was scanned for additional relevant citations that did not appear in any search results. Second, each article was entered into the Web of Science Core Collection citation index (Thomson-Reuters, n.d.) to identify relevant articles which had cited the results of the initially-identified studies. All of the inclusion/exclusion criteria outlined above were applied to these articles. As a result of the treeing process, an additional 33 articles were located, forming the foundation of the review. These were supplemented with additional articles and data that were identified through the literature as specific questions arose.

The following list of factors predicting pretrial failure was compiled from the instruments examined in Part 3 and reviewed in Part 4. Please note that "risk" in this context refers to the risk of pretrial failure, conceptualized by the majority of studies as risk of FTA and re-arrest while on pretrial release.

Factor	Supporting Research
Individual-Level Factors	
Age	• Being younger in age increases risk (Fennessey & Huss, 2013) • Risk is increased if defendant is under age 21 at time of preliminary arraignment (Clark & Levin, 2007; Podkopacz et al., 2006) • Being older decreased the risk of pretrial failure (Siddiqui, 2006) • Risk is highest for ages 20–29 (2); risk is moderately high for <19 years of age (1); risk is low for ages 30+ (Austin et al., 2012) • Risk is highest for ages <26 (2); risk is moderately high for ages 27–46 (1); risk is low for ages 47+ (Lowenkamp & Wetzel, 2009) *Age at first arrest* • Risk is highest if <33 years of age; risk is lower if age 33+ (Latessa et al., 2009, 2010; Lowenkamp et al., 2008) • Risk is highest if defendant is ≤19 years of age (15); risk is high if defendant is ages 20–24 (12); risk is moderate if defendant is ages 25 – 34 (10); risk is low if defendant is age 35+ (Pretrial Justice Institute, 2012a)
Ethnicity[36]	• Being an ethnic minority increases risk (Fennessey & Huss, 2013) • Probability of FTA higher for African American defendants (Cohen & Reaves, 2007; Prell, 2008; Siddiqui, 2006) and Hispanic defendants (Cohen & Reaves, 2007; Siddiqui, 2006)
Gender	• Being male increased risk (Fennessey & Huss, 2013 Siddiqui, 2006)
Mental health status/history	• History of mental health concerns increases risk (Austin et al., 2012) • Current or past mental health treatment (Hedlund et al., 2005; Pretrial Justice Institute, 2012a)
Substance abuse	• History of drug/alcohol abuse increases risk (Austin et al.,

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[36] Note that many studies do not report significant trends for ethnicity.

	2010; Clark & Levin, 2007; Pretrial Justice Institute, 2012a; VanNostrand, 2003)
	• Current drug problems (Bechtel et al., 2011; Fennessey & Huss, 2013; Hedlund et al., 2005; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Pretrial Justice Institute, 2012a)
	• Risk increased if abusing alcohol (21%), cannabis (23%), or narcotics (40%; VanNostrand & Keebler, 2009)
Concurrent substance abuse and mental disorder	• History of concurrent mental health and substance abuse increases risk much more (Austin et al., 2012; Hedlund et al., 2005)
Economic Factors	
Employment status/history	• Unemployed is greater risk (Austin & Murray, 2009; Austin et al., 2012; Clark & Levin, 2007; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Podkopacz et al., 2006; Siddiqui, 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009)
	• 1-2 years at same job decreases risk, >2 years at same job decreases risk even more (Hedlund et al., 2005)
	• Part-time employement increases risk, but less than unemployment. Risk is lowest for full-time employment (Latessa et al., 2009, 2010; Lowenkamp et al., 2008)
	• Unemployed and not in school full time, not retired, disabled or a homemaker increases risk (Austin & Murray, 2009)
	• Working < 20 hrs/week, being unemployed, and not being a student increases risk (Podkopacz et al., 2006)
	• Having verified employment/schooling/training decreased the odds of pretrial failure (Siddiqui, 2002, 2006)
	• Defendants who had not been employed continuously at one or more jobs during the two years prior to their arrest or who were not the primary caregiver for a child at the time of their arrest were more likely to fail pending trial (VanNostrand, 2003)
Education level	• Having less than high school or GED increases risk (Austin & Murray, 2009; Lowenkamp & Wetzel, 2009; Fennesey & Huss, 2013; Hedlund et al., 2005; Siddiqi, 2002, 2006)
	• Having greater than a high school diploma decreases risk (Hedlund et al., 2005; Lowenkamp & Wetzel, 2009)
	• Higher education increases risk (Bechtel et al., 2011)
Financial resources	• Having verified sufficient means of support decreases risk (Austin et al., 2010)
	• Relying on others for financial support decreases risk, self-reliance decreases risk even more, compared to no financial support (Hedlund et al., 2005)

Home ownership	• Owning own home decreases risk (Clark & Levin, 2007) • Having a mortgage in one's own name decreases risk, compared to renting, not having a place to live, or living in other arrangements (Lowenkamp & Wetzel, 2009; VanNostrand & Keebler, 2009) • Renting or unknown residential arrangements, not contributing to residential payment or unknown payment contributions increases risk (Pretrial Justice Institute, 2012a)
Transportation	• Not owning own automobile increases risk (Austin & Murray, 2009)
Having a Telephone/Cell Phone	• Not having a telephone or cell phone increases risk (Austin et al., 2012; Pretrial Justice Institute, 2012a; Siddiqi, 2006) • Not having landline increases risk (Siddiqi, 2002)
Social Factors	
Residential stability	• Risk greater without a verified address (Austin et al., 2010; Siddiqi, 2002, 2006) • Length of time at residence; under 12 months is greater risk (Austin et al., 2010, 2012; VanNostrand, 2003) • Less than 6 months at current residence increases risk (Latessa et al., 2009, 2010; Lowenkamp et al., 2008)
Residence arrangements	• Living companion(s): living with roommates and non-immediate family decreases risk, living with immediate family decreases risk more (compared to living alone; Hedlund et al., 2005) • Lives with someone other than spouse, children, or self (Austin & Murray, 2009)
Marital status	• Being married decreases risk (compared to not being married; Hedlund et al., 2005) • Being single increases risk (Austin et al., 2012)
Availability of guarantors	• Having a reference verify that they would be willing to attend court with the defendant or sign a surety bond decreases risk (Austin et al., 2010) • Risk for PTF lower if defendant expected someone to attend arraignment (Siddiqi, 2002, 2006) • Having a verifiable character reference decreases risk (Hedlund et al., 2005)
Criminal Factors	
Criminal history	*Prior arrests* • Prior arrests increase risk (Bechtel et al., 2011; VanNostrand & Keebler, 2009) • Prior arrests as a juvenile increase risk (Bechtel et al., 2011) • Prior misdemeanor or felony arrests (VanNostrand & Keebler, 2009) *Prior incarcerations*

	• 3+ prior jail incarcerations (Latessa et al., 2009, 2010; Lowenkamp et al., 2008) • Past jail or prison incarceration (Pretrial Justice Institute, 2012a) *Prior convictions* • Having one misdemeanor increased risk (Austin & Murray, 2009; Austin et al., 2010, 2012; Bechtel et al., 2011; Clark & Levin, 2007; Siddiqi, 2006; VanNostrand, 2003) • Prior felony convictions increases risk (Austin & Murray, 2009; Austin et al., 2010, 2012; Bechtel et al., 2011; Fennessey & Huss, 2013; Lowenkamp & Wetzel, 2009) *Number of convictions/arrests* • Total number of convictions (risk increases with each additional conviction; Podkopacz et al., 2006) • Prior misdemeanour or felony arrests; one increases risk, but risk increases with each additional arrest (VanNostrand & Keebler, 2009) • Two or more prior felony or misdemeanor convictions increases risk (Clark & Levin, 2007) • Prior number of convictions: 1-2 increases risk, more than 2 increases risk even more (Hedlund et al., 2005) • One to four prior felony convictions increases risk; 5+ increases it even more (Lowenkamp & Wetzel, 2009) *Type of past conviction* • Having a criminal record: misdemeanor increases risk, felony increases risk more (Hedlund et al., 2005) • Prior violent crime convictions increases risk (Austin et al., 2010; Bechtel et al., 2011; Fennessey & Huss, 2013) • 2+ violent convictions increases risk (VanNostrand, 2003) • Having at least one drug conviction increases risk (Fennessey & Huss, 2013) • Use of a weapon in offence increases risk (Bechtel et al., 2011)
Past release failures	*Prior FTA* • Having a prior FTAs increases risk (Austin & Murray, 2009; Austin et al., 2010, 2012; Bechtel et al., 2011; Clark & Levin, 2007; Cohen & Reaves, 2007; Fennessey & Huss, 2013; Latessa et al., 2009, 2010; Lowenkamp et al., 2008; Lowenkamp & Wetzel, 2009; Podkopacz et al., 2006; Siddiqi, 2002, 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009) • FTA for misdemeanor increases risk, FTA for felony

	increases risk even more (Hedlund et al., 2005) • Prior FTA for a criminal traffic violation increases risk (Austin et al., 2010) • Active warrant(s) for FTA prior to disposition increases risk (Austin et al., 2010) *Number of prior FTA* • Prior FTAs; one increases risk, and risk increases with each additional FTA (VanNostrand & Keebler, 2009) • 2+ prior FTAs (VanNostrand, 2003) • Prior FTAs increases risk; 1 increases risk 2 exponentially increases risk (Austin et al., 2012) • Number of FTA warrants issued in past 24 months: 1 increases risk, 2+ increases risk more (Latessa et al., 2009, 2010; Lowenkamp et al., 2008) • Defendant has two prior FTAs (increases risk); 3+ greatly increases risk (Clark & Levin, 2007) • One to four FTA increases risk; 5+ increases risk more (Lowenkamp & Wetzel, 2009) *Prior escape from custody* • Prior conviction for felony escape increase risk (Austin et al., 2010) • Having prior escape from lawful custody increases risk (Fennessey & Huss, 2013) *Prior revocation or supervision failure* • Prior community supervision violation (Bechtel et al., 2011) • History of revoked bond or supervision for any type of community supervision prior to this arrest (Pretrial Justice Institute, 2012a)
Current criminal involvement	• FTA more likely for defendants with active criminal status at time of arrest (Cohen & Reaves, 2007) *Current community supervision sentence* • Currently under community supervision (including parole, probation, pretrial supervision, diversion, community corrections, or other type of community supervision) increases risk (Pretrial Justice Institute, 2012a) • Currently on probation or parole increases risk (Austin & Murray, 2009; Clark & Levin, 2007) • Currently on probation/parole from a felony conviction increases risk (Austin et al., 2010) *Pending trial/appeal/sentencing on another charge*

	- Being charged with a new offense or having pending cases increases risk (Austin et al., 2010; Bechtel et al., 2011; Lowenkamp & Wetzel, 2009; Pretrial Justice Institute, 2012a; Siddiqi, 2002, 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009) - Having an outstanding arrest warrant increases risk (Clark & Levin, 2007; Pretrial Justice Institute, 2012a; VanNostrand, 2003) *Nature of current charge* - Current most serious charge is property-related increases risk (Austin et al., 2012) - Current charge of burglary, theft, fraud, other property, or delivery of controlled substance (Austin & Murray, 2009) - Drug, firearms, or immigration-related matters increases risk (Lowenkamp & Wetzel, 2009; VanNostrand & Keebler, 2009) - Offence is a felony class increases risk (Austin et al., 2010; Lowenkamp & Wetzel, 2009; Podkopacz et al., 2006; VanNostrand, 2003; VanNostrand & Keebler, 2009) - In terms of misdemeanor-level offences at initial arrest, being charged with violent offences decreased the risk of pretrial failure, while being charged with property, drug, or public order offences increased risk of pretrial failure (Siddiqui, 2006) - No difference if violent offence (VanNostrand & Keebler, 2009) - Current charge is a 'dangerous crime' as defined by Florida statute (wide range of mostly violent crimes, including assault, homicide, sexual assault, manslaughter, arson, kidnapping, burglary, robbery, domestic violence, stalking, terrorism, and drug manufacturing) decreases risk (Austin et al., 2012)